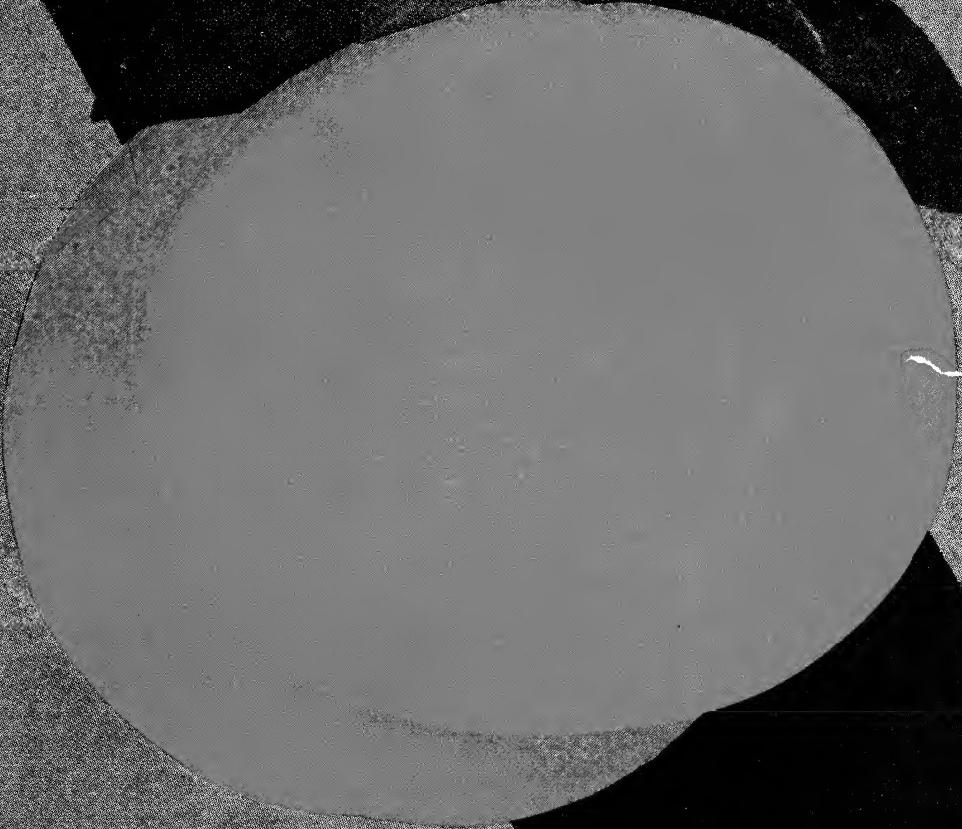


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# BUCKEYE NURSERIES



Tampa, Florida  
ESTABLISHED 1880

# Buckeye Quality • Buckeye Service Buckeye Reputation

Success in Citrus-fruit culture depends almost entirely on a few easily understood conditions. Chief among these are the following:

- Selection of the community and soil for the location of the grove.
- Planting of trees that have been grown right, and which possess the elements of vigor and health.
- Setting of the trees properly, giving them the necessary amount of the right kind of fertilizer, and cultivating according to approved practices.
- Picking and packing the fruit in such way as to place it on the markets fully ripened and in prime condition, and selling it by modern and scientific methods.

Buckeye Nurseries are devoted exclusively to the production of Citrus trees. For thirty-five years the owners have been engaged in this business. In that time they have built up a reputation for quality that today is their most highly prized asset. Buckeye trees are known as better than the best wherever Citrus fruits are grown.

The proprietors of Buckeye Nurseries always have taken the position that their duty and responsibility to the growers did not end with the delivery of first-class trees in good condition. They have felt that it was a part of their business to take every practicable step to assist the planter to make his Citrus investments profitable. Accordingly, they have been ever ready to help in the selection of grove locations and to give advice regarding all cultural problems, as they have devoted much time, thought and money to the solution of the marketing problems of the Citrus industry.

So Buckeye Nurseries have attained their world-wide reputation as much through the service that they have rendered grove-owners in collateral ways as through the quality of the trees they have supplied. Every year sees an improvement in the trees produced by Buckeye Nurseries, due to the installation of more modern equipment and to rigid adherence to the quality standard. Each season, too, marks an advance and expansion in the service to planters rendered by Buckeye Nurseries. It is little wonder, then, that the ever-increasing reputation of Buckeye Nurseries has given them such a commanding place in the industry that intelligent growers are satisfied alone with Buckeye Trees, and will take no others.



Three-year-old Buckeye Grapefruit tree

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## FOREWORD

**T**HE average person must exercise a very considerable degree of faith in buying nursery trees. He must depend upon the source of supply rather than his own knowledge for assurance that the trees are true to name, healthy, and so grown that when transplanted the best results may be expected.

Two trees may be of equal size, yet one represent many months more growth than the other. They may look equally hearty and healthy, yet one may have disease in concealed form from which the other is free. And of course the grower must await the fruiting period before he can know positively that the trees are of the varieties ordered.

Obviously, the planter of trees who wants the full worth of his money will be governed in making his purchases by the business history, horticultural experience and general reputation of the various concerns seeking his order. The most searching investigation along this line always has been courted by Buckeye Nurseries. The honorable story of their founding and development has been told in greater or less detail in every catalog they have published.

The present edition of the book again points, with a pride that the owners of Buckeye Nurseries believe will be considered pardonable, to the experience, the facilities, the integrity, the responsibility, the resources and the service on which their reputation has been builded. *All these things are of prime importance to the buyer of nursery trees, as giving the assurance which even the most expert can have only in small degree from personal knowledge.* They show why Buckeye Nurseries have gained and hold their high place in the esteem of the most successful growers of Citrus fruits, who do not hesitate to tell of their satisfactory dealings with Buckeye Nurseries.





Trees laden with ripening Citrus Fruits

## The Profitable Citrus Grove: Some Facts

GROWERS of Florida Citrus Fruits during the past few years have received for their crops an average annual income of upward of \$10,000,000, from a yearly yield of about 8,000,000 boxes. Citrus fruits rank third in Florida products. Live-stock leads, then come field crops, then the fruits, composed mainly of oranges, grapefruit, limes and lemons. Citrus culture is more general through the central and southern portions of the state today than ever before. Thousands of new trees are being transferred from nursery to groves. In every instance fine budded stock is used, and the day of the old-time seedling grove is rapidly passing by.

Choice of varieties and modern cultural, packing and marketing methods are receiving careful consideration. The business is being conducted on the most approved lines. Growers realize that the man whose fruit is just a little better than the average has a decided advantage in that there is a stronger demand for it at a higher price than for the general run of fruit. Those who intend to engage in citrus-fruit culture, and those who plan to rehabilitate old groves, should consider well the first essential—the selection of the best orange, grapefruit, lime and lemon stocks obtainable.

Taking one year with another the returns from a citrus grove, properly located and handled, will far exceed any other agricultural or horticultural investment. There will, of course, be fat years and lean ones, but the average income covering a period of years is the actual test. With all of Europe at war, with business conditions much unsettled all over the world, strict economy must be exercised by thousands of people. The manufacturer or merchant who "breaks even" during such troublous times thinks that he has done well. Then there are seasons, and not a few, when the growers of the staples, such as corn, cotton, wheat, oats, potatoes, apples, etc., get barely the cost of production. Looking at the proposition up one side and

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Early fruit in a well-kept grove

down the other the statement holds that the grower of citrus fruits is engaged in the most profitable and certainly the most agreeable and fascinating of all outdoor occupations. It is a significant fact that there has never been known a crop failure in the citrus industry, and while of course there are years when citrus trees produce more than others, at the same time the citrus tree is different from deciduous trees in that it always bears some fruit. There are two blooming periods for the citrus tree,—one in the spring, and the other in the summer,—and they seem to automatically adjust themselves in case they lose their early bloom. Acre for acre, citrus-fruit growing is the most profitable line of agriculture or horticulture known, and it always has been, is now, and always will be Florida's greatest asset.

Florida citrus fruits cannot be equaled by the products of any other state or country. In Florida nature has conferred a blessing in the right blending of moisture and sunshine in such well-balanced proportions as to produce grapefruit and oranges that are full almost to bursting of sweet and delicious juice, which is as healthful as it is appetizing and nourishing. The dews of early morning and evening, the copious and almost daily showers during the spring and summer months, the genial warmth and the generous sunshine which fill the citrus grove almost every day in the year, combine in the production of a fruit that has no rival. The test of years has proved that the modern grove must be made up of the choicest varieties, such as will span the present marketing season and extend if possible to make it of greater length. There is demand for the Florida grapefruit long after the last box has been gathered, and it is the hope of the Florida citrus grower that grapefruit culture may be developed so as to cover the twelve months of the year. Groves now in the making, therefore, combining the grapefruit with the orange, include such varieties as the Walters, the Marsh Seedless, and the famous Inman Late, early, midseason and late kinds which cover a marketing period extending from November until August.

So with the orange. It is the ambition of the up-to-date citrus-grove owner to have oranges that are tree-ripe early in fall, and at the same time



Field-crates filled and ready for the packing-house

have varieties of fruit that will not mature until the midsummer months. To obtain these results he must have the Parson Brown to open the season in October, following with the Pineapple for the midseason business, and the Valencia Late for the close of the Florida citrus-fruit season. If he is wise, he will also have a generous-sized block of the Lue Gim Gong, the orange with sufficient vitality to hang on the trees without deterioration from one season to another. Then, too, there has recently joined the Florida citrus family, the Tahiti or Persian lime, a fruit that excels the lemon of Sicily, and for which there is already a demand far in excess of the generous planting of this delicious fruit. The lemon also is coming back into its own in Florida. The Seedless Villa Franca is the popular variety. The King orange, the unchallenged monarch of the Mandarin family, and the Tangerine, continue to grow in popular favor, and are being more generally planted now than ever before.

While Florida citrus-fruit growers appreciate the advantages of a fruit above the average, even more so do they realize the importance of modern picking, packing, and marketing facilities. During the past season, as in all the previous years of its existence, the Florida Citrus Exchange has demonstrated that it is a money-maker for the citrus-fruit growers of Florida. It has stimulated the fruit men to better effort in the care of their groves, it has educated them to the financial benefits of better packing-house facilities and the advantages of established brands, and those who have followed the sound advice given have received better net returns from their fruit. The Florida Citrus Exchange is a coöperative organization composed of and operated by the growers of citrus fruits, whose aim is to secure fair returns for their labor by producing good fruit, picking and packing it with care, sending it only to markets that demand the supply offered and telling the consuming public, by means of newspaper, magazine and other forms of advertising, about the merits of this fruit.

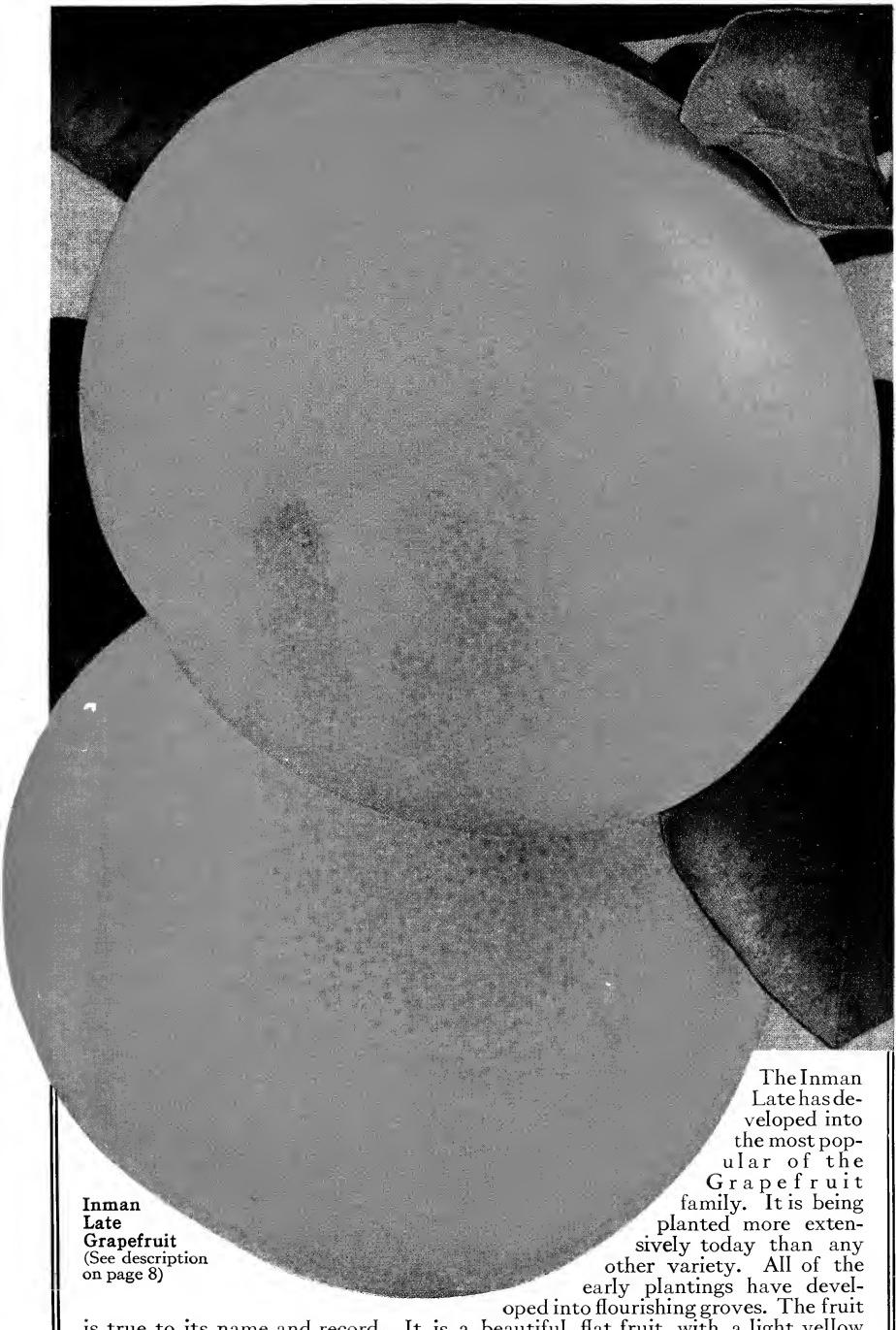
The Florida Citrus Exchange is composed of none but growers; it is controlled and managed by them and operated in their interests. The fruit



Branches scarcely able to bear their load of fruit

of its members goes to market under such conditions as to prevent that of one grower competing with the crop of another. Without such an organized and coöperative handling as the Exchange gives, the fruit of every grower would compete with that of every other. The Exchange has already accomplished much for the citrus industry of Florida, and with its rapidly increasing membership it has even greater and more important work to do. Every fruit grower in the State, or out of it, may become a member. Three or more growers in a community may form a local association and the members thereof elect its officers and determine its policies. They choose one of their number to represent them in the Sub-Exchange, composed of three or more such local associations usually located in the same county. These directors of the Sub-Exchange elect a grower of one of the local associations to represent their interests on the board of directors of the Florida Citrus Exchange.

The outlook for the future of the Exchange was never brighter. More members have been added to the roll this year than during any other season. More packing-houses have been built and more packing-house machinery has been installed than ever before. Ever since its organization Buckeye Nurseries have been consistent advocates of the Florida Citrus Exchange. As mentioned elsewhere, Mr. M. E. Gillett was its first executive head. Buckeye Nurseries are the owners of extensive commercial plantings, to which they are constantly making conspicuous additions. All the fruit grown in these Buckeye groves is handled by the Exchange, always has been, and always will be. The owners of Buckeye Nurseries predict that there never has been a time when groves could be planted with so much assurance of the final profitable outcome of the investment, provided proper care is exercised in the selection of soil, location, choice of varieties, quality of trees, cultural methods, picking, packing and marketing processes, as at the present time. The bugaboo of over-production should alarm no one. When the small area in which citrus fruits can be produced, and the increasing consuming population are taken into consideration, all fears of over-production are at once allayed.



Inman  
Late  
Grapefruit  
(See description  
on page 8)

is true to its name and record. It is a beautiful, flat fruit, with a light yellow or silvery skin, and the meat is fine in texture and rich in flavor. Ripening as it does late in the season it may be depended upon for the lucrative late spring and summer markets. Inman Late Grapefruit is destined to become one of the most profitable varieties for commercial plantings.

The Inman Late has developed into the most popular of the Grapefruit family. It is being planted more extensively today than any other variety. All of the early plantings have developed into flourishing groves. The fruit

## INMAN LATE GRAPEFRUIT

**T**HERE are but few memorial monuments in Florida, but those standing today commemorate men who accomplished something worth while during their lifetime. One is erected in north Florida, perpetuating the memory of a physician who first made artificial ice. There is another in central Florida, dedicated to the memory of Dr. F. W. Inman, the originator of the Inman Late Grapefruit, who was, during his lifetime, one of the foremost men in the citrus-fruit industry of Florida.

**D**ILLY In Dr. Inman's day there was no great or persistent demand such as now exists for the dependable late varieties of oranges and Grapefruit. The doctor, therefore, must have been crystal-gazing when he forestalled the need of a late variety of Grapefruit and builded better than he knew. He no doubt realized, from the medicinal point of view, that the health-giving properties of the Grapefruit would become more generally recognized, and that this fruit would increase in popularity as a summer breakfast food and salad ingredient with the passing of years.

**D**ILLY Mr. M. E. Gillett, founder of the Buckeye Nurseries, was a close personal friend of Dr. Inman, and the two frequently conferred upon the subject of citrus culture and its development. Mr. Gillett obtained from Dr. Inman the buds from the original Inman Late tree, and set to work in Buckeye Nurseries to propagate this variety in which he had so much faith. Forestalling a general future demand, the owners of Buckeye Nurseries budded large blocks of stock to the Inman Late. Today their wisdom is justified in the large plantings already made of this popular variety of Grapefruit, and in the ever-increasing demand for trees of Inman Late.

**D**ILLY The Inman Late is a regular and reliable bearer. It seldom forms in clusters, and the fruit is well distributed all over the tree, particularly through the inside branches. The size is medium to large, with smooth, tough skin of very bright, silvery yellow. The shape of the fruit is flat, which is particularly desirable from the seller's point of view. It runs from 46 to 64 to the box, the average being from 54 to 64. The Inman Late ships well all through its season, and is noted for hanging to the tree without detriment. It is ready for shipment early in February, or it will keep just as well and safely until July or the first part of August.

**D**ILLY There is no other variety to compare with the Inman Late. It is adapted to any location in the citrus-growing section of Florida where Grapefruit will grow. It has been under close observation by leading horticulturalists for years, and it has been proved out on every point claimed for it. This is particularly true of its tendency to hang and retain all of its excellent qualities until the close of the summer market. It is the last fruit and the last word in Florida Grapefruit.

**D**ILLY The proprietors of Buckeye Nurseries are convinced that the Inman Late is the coming Grapefruit of Florida. The best-informed men in the citrus industry of Florida are also of this opinion. Those who contemplate making new groves or who plan to modernize old groves are strongly advised to plant Inman Late for future values and profits. Many experienced growers are now rebuilding, or will in the near future rebuild, grove properties with this variety of Grapefruit. The demand for Inman Late promises to be greater than the supply this year.

**D**ILLY The Bureau of Plant Industry of the United States Department of Agriculture writes, under date of March 7, 1913, concerning the famous Inman Grapefruit (Pomelo) as follows: "We are glad to hear such favorable report of the Inman Pomelo. This remarkably fine fruit created much favorable comment in this office. We found this to be one of the best Pomeles that we have received here, and it is certainly promising for the Pomelo industry in Florida."



Four-year-old Buckeye tree—Good location; good soil

## The Profitable Citrus Grove: Location

CLIMATE, that wonderful combination of air, moisture and sunshine, has as much to do with the excellence of Florida's superb citrus fruit as either location or soil. Starting out with the right sort of stock, a fine grove can be made in any portion of South and Central Florida, provided the soil is suitable. Buckeye Nurseries have on file hundreds of letters, testifying to the merits of Buckeye trees, from men and women who have made splendid groves in a variety of soils ranging from the muck and low hammock, up to the high hammock and high pine land.

The orange, grapefruit, lime and lemon adapt themselves to many of the varied soils found in Florida, taking kindly not only to the high pine land, where there is a sprinkling of oak trees with the stately long-leaf pine, and the high hammock lands covered with a magnificent growth of hardwoods, but also very fine orange and grapefruit groves have been and are being made on flatwoods, low hammock and prairie lands, and in the muck lands which have been reclaimed. Citrus trees, like children, appreciate care and attention, and thrive best when their cultural needs are carefully considered and supplied.

There are a few things that the citrus tree does not like, principal of which is any obstruction to its root-system. Standing water is the most harmful, yet the tree does not object to moisture if the surplus water is circulating and does not keep the roots submerged too long. The citrus tree likes to send out its roots in all directions without hindrance. It delights in a marl or clay subsoil; both are always moist and easily penetrated. The roots, however, dislike a stratum of hard-pan, particularly when within two feet of the surface. But hard-pan is no longer as greatly dreaded as formerly. It is easily and inexpensively shattered with a light charge of dynamite. Through the small crevices thus made the roots find their way in search of



Three-year-old Buckeye Grapefruit trees ideally located

moisture. The surface roots seek air, which they can find always, while the feeders push out in search of food which the grove owner should be sure is to be had at all times.

It is the belief of many that the best fruit is grown on the high pine lands. It is claimed that it will remain on the trees longest and ship much better than the lowland fruit. On the other hand, the advocates of the lowlands assert that their citrus trees are more reliable and more prolific bearers. They say that with modern shipping facilities and the rapidity with which citrus fruits are consumed on reaching the markets, it is not essential that their fruit should possess unusual keeping qualities. Each character of soil has its advocates. Each kind, too, produces good groves when the proper foundation is laid in the planting of reliable stock such as Buckeye Nurseries supply. These trees have splendid vigor and a root-system that carries them through many hardships. Under favorable conditions they perform wonders.

The location for the making of a citrus-fruit grove by the new-comer not familiar with Florida conditions is important, but equally so is the selection of trees. Another point for the new settler to consider is distance from transportation. It should be borne in mind that long hauls reduce profits. There is an abundance of excellent citrus land in Florida. Of a total of 35,111,040 acres of tillable land in the state, only 1,174,847 acres are under cultivation. Of Florida's agricultural income of \$100,000,000 for the year ending July 1, 1915, less than 20 per cent of it was from citrus fruits.

The prospective settler is strongly urged to make a personal selection of his Florida land, the same as he would examine a new horse if he were buying one. In making his purchase he should endeavor to get in or near a growing and prosperous community; a location where bonded hard-surface roads are under construction or already made, and where there is transportation. Finally, he or she (for there are many women engaged in citrus culture in Florida), should order citrus trees from a thoroughly reliable, time-tested and financially responsible firm of nurserymen such as the owners of the Buckeye Nurseries. To make a successful grove, start with dependable trees.



Vigor and health in our Buckeye Nurseries trees

## The Profitable Citrus Grove: Varieties

THE Florida fruit grower must look into the future when it comes to the selection of varieties for his new grove. Never before in the history of Florida citrus culture has so much careful thought been devoted to kinds of fruit that will be of the highest commercial value in the years to come. Horticulturalists are agreed that plantings should be confined to as few varieties as possible, and that these varieties must be of a nature that will extend the marketing of Florida citrus fruits from early fall, through the winter and spring months, into the summertime. The nurseries wherein are being developed stock that is to supply all planting requirements for the next few years must of necessity take the lead in any movement looking to a concentration upon a few kinds. It is significant that throughout this catalog it will be observed that Buckeye Nurseries have forestalled future demand in that only a very few of the select varieties are offered to the trade.

Buckeye Nurseries have been the standard index to the Florida citrus industry for many years. Through the untiring energy and expert knowledge put into the business by Mr. M. E. Gillett and his sons, the property has developed into the largest exclusively citrus nurseries in the world. It is with pardonable pride that the proprietors of Buckeye Nurseries travel throughout the length and breadth of Citrus Florida and view on every side magnificent groves made from the trees propagated under their scientific and successful management. The years to come, since Buckeye trees are so generally praised by those who recognize them as the best that can be obtained, must necessarily see many more miles of Buckeye trees in due time developing into profitable citrus-grove properties.

In June of this year (1915) Buckeye Nurseries asked some of their customers to write them regarding the condition of their trees. Hundreds of letters received express entire satisfaction, not only with the stock supplied



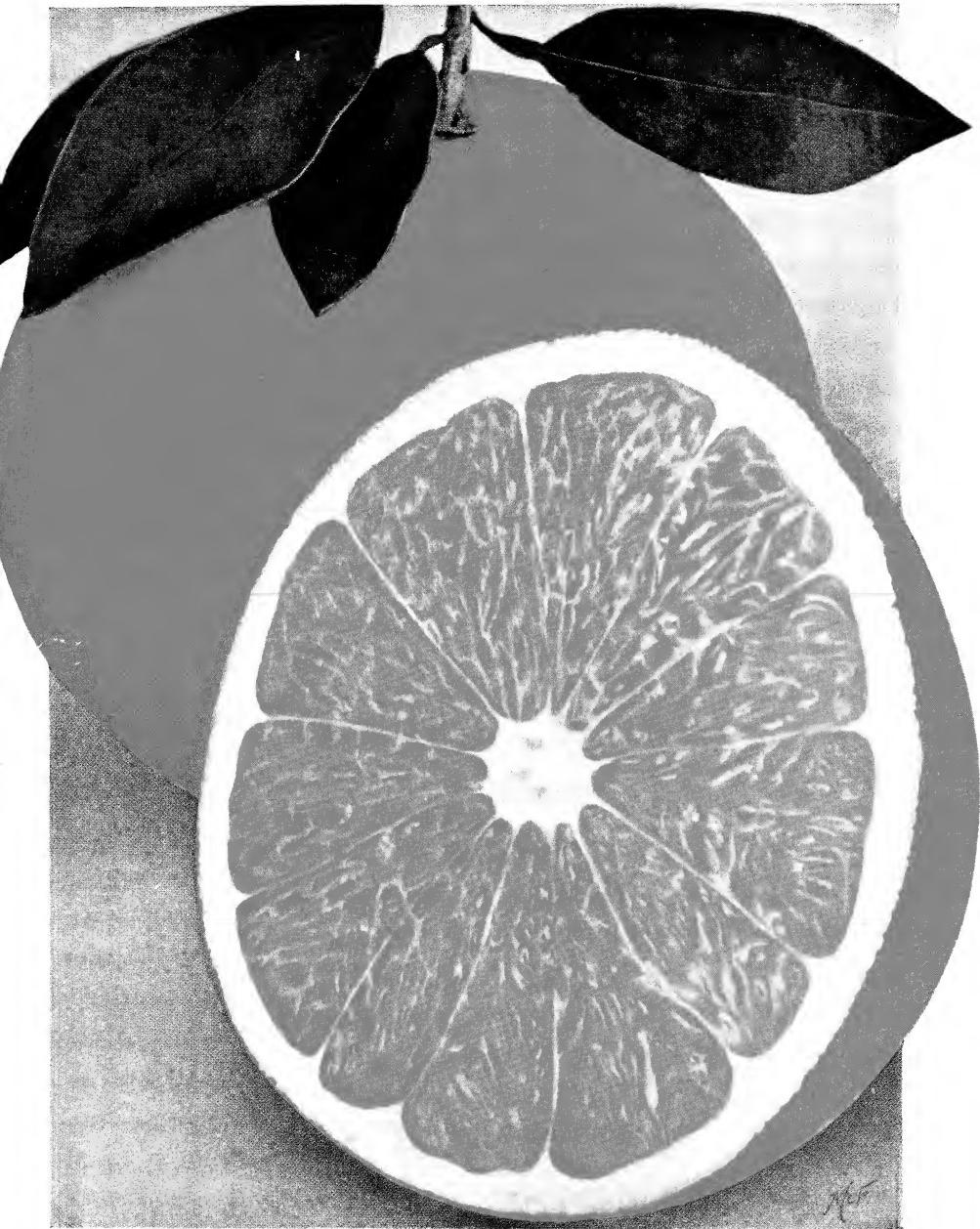
Miles upon miles of Buckeye trees, Tampa, Florida

—mainly in relation to the vigor of the trees and the well-developed root system—but with the interest manifested in the success of the plantings on the part of the owners of Buckeye Nurseries. In each communication there is the ring of confidence.

The supremacy of Buckeye Nurseries has been due in no small degree to the careful selection of varieties offered customers. In oranges, Buckeye Nurseries, after many years of testing and experimenting, confine attention wholly to those that are best for the early, midseason and late markets. The old reliable Parson Brown stands first and foremost of the early kind. Buckeye Nurseries propagate only the genuine Parson Brown, and the fruit that these trees will bear may be relied upon fully.

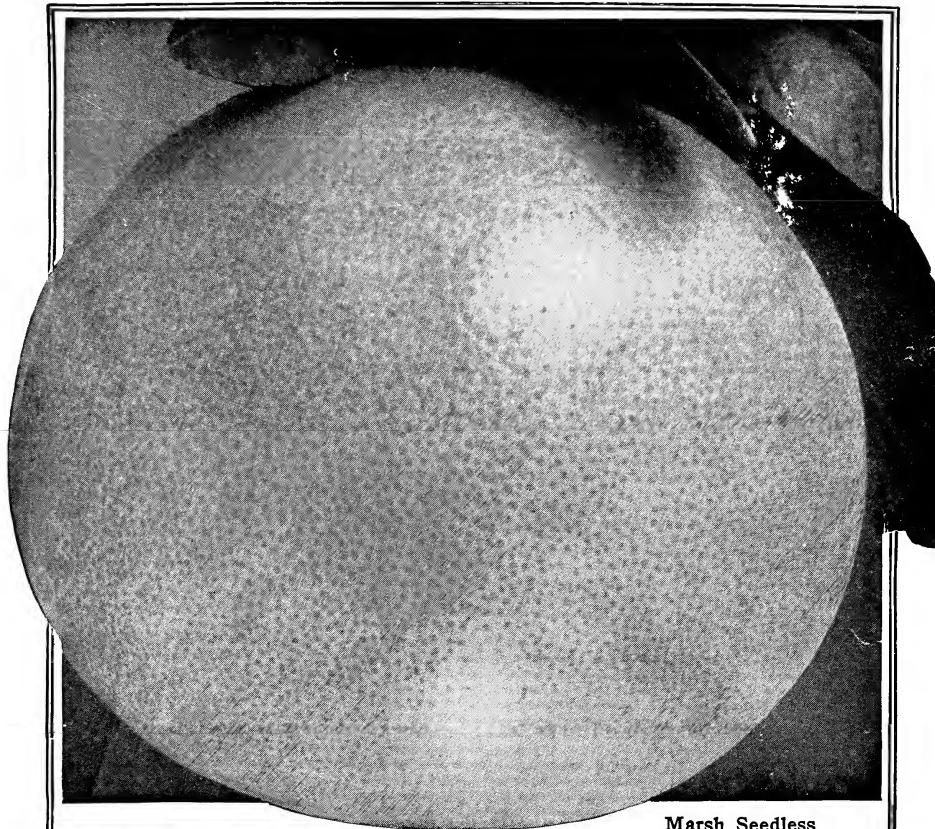
The Pineapple orange is almost as early as the Parson Brown, but it has the advantage of hanging upon the tree until February, sometimes into March, making it a midwinter fruit. The leader of the summer varieties is the Valencia Late. It is ready for market about April 1, when there is no other Florida citrus fruit and before the California orange of the same name is ready for consumption. The Lue Gim Gong is an orange of recent introduction in Florida. Its most remarkable feature and bid for popular favor is that it will hang on the tree for a year or two without losing its good qualities, and may be shipped when there is no other Florida orange on the market.

The trend of the times warrants the planting of a modern grove one-half to oranges and one-half to grapefruit. With the grapefruit, as with the orange, the same rule obtains as to choice of varieties so as to cover market demands for the early midseason and the late or midsummer kinds. In their order first comes the Walters grapefruit, in which the Buckeye Nurseries specialize as an early kind. Next comes the Marsh Seedless, good for the midseason, then last, but not least, the Inman Late. This wonderful fruit is a "hanger-on" of great tenacity. The Tahiti or Persian Lime, and the Seedless Villa Franca lemon deserve space in every citrus-fruit grove. It is advisable to confer with Buckeye Nurseries before planting a grove, as some varieties do much better in some sections than others.



## WALTERS GRAPEFRUIT

**T**HE years of study devoted to the several varieties of Grapefruit by the leading horticulturalists of Florida have resulted in the elimination of many and in the final adoption of a few. Since Grapefruit has come into general popularity, and on account of its healthful and medicinal qualities is destined to become the universal fruit, the extension



Marsh Seedless  
Grapefruit

**WALTERS GRAPEFRUIT, continued**

of the marketing season is very much to be desired. It is a fruit that ultimately must supply an all-year-round demand. To this end it is the purpose of Buckeye Nurseries to propagate varieties that will mature fruit early and late.

The Walters Grapefruit is a very popular kind. It is ready for the market in November, and under favorable conditions may be held on the tree until the first of May. It is a very vigorous grower and heavy bearer. As with the Inman Late, the fruit is inclined to hang singly, and while propping sometimes must be resorted to, the branches are not generally strained. In groves properly handled, generally the sizes run from 46 to 64 to the box, which are the most desirable and most profitable sizes. The Walters Grapefruit has no peer in richness of flavor, thinness of skin and other qualities that popularize a fruit for consumption or for marketing qualities.

## MARSH SEEDLESS GRAPEFRUIT

**T**HIS is the only variety of Grapefruit that is practically seedless, there being seldom more than three or four seeds to each fruit. The Marsh is one of the popular varieties for this reason. Its other good qualities are its large size, its roundish form, its attractive lemon-yellow color and smooth skin. The flesh of the Marsh Seedless is very juicy and the flavor excellent. It is ready for the market early in February and throughout March at a time when there is great demand for a first-quality Grapefruit. Marsh Seedless is popular, and there is a persistent demand for this variety.



There is a vast production in Buckeye Nurseries

## The Profitable Citrus Grove: Selecting Trees

IN selecting nursery stock for a new grove, or for rejuvenating an old one, it is important to know the history of the tree from the seed to the bud.

Buckeye Nurseries use three kinds of stock: rough lemon, sour orange and trifoliata. Thirty-five years' experience in Buckeye Nurseries has demonstrated that the rough lemon as the foundation for a citrus tree is the most satisfactory. This is native to Florida, Cuba, Porto Rico and Jamaica, and possesses many advantages. It is resistant to disease and specially adapted to light or sandy soil for quick results and heavy crops. The claim has been made that this stock has a marked influence on the fruit, in that it will dry out and get light if held late in the season. This calumny is disproved year after year at the Florence Villa as well as the Winter Haven packing-houses where probably 90 per cent of all the fruit shipped is on rough lemon root. The Florence Villa packing-house closed this (1915) year on June 20, and up to that date was shipping Valencia oranges and grapefruit all grown on rough lemon root, and the prices received proved that the quality was superior beyond all question. Budded trees on the rough lemon root bear earlier and more abundantly than on any other stock.

The sour orange is a wild seedling, native to the same countries as the rough lemon. In the early history of orange culture in Florida most of the nursery stock was derived from some orange seeds found generally in the low hammocks of the state. Groves made of this stock were usually in the neighborhood and in the same character of soil from which the stock was taken and they made good trees. On the light, sandy soils away from the hammocks, trees budded to the sour orange root did not do so well. In hammocks and all soils generously or even excessively supplied with moisture, or where there are likely to be chilly nights, the sour orange stock fills every requirement. Its root growth is abundant, it resists disease, it is hardy and

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Each budded tree is tied to a stake and carefully tended

withstands a decided range of temperature. Buckeye Nurseries contain thousands of trees of all varieties budded to sour orange stock, forestalling the strong and ever-increasing demand. There are many kinds of soils in which sour orange stock does exceedingly well, and plantings of this sort of trees are becoming more popular with the spread of advanced scientific citrus culture.

The one other seed used in making citrus stock for budding is the trifoliata, the hardiest variety of the citrus family. It reaches its maximum development in a comparatively cold climate and has been known to withstand a temperature below zero. Buckeye Nurseries do not bud a great deal to this stock because it is not recommended for the southern citrus belt or the territory known as "Citrus Florida." This root is adapted to those sections where only the Satsuma or an equally hardy orange is grown. It is dormant during the time of year when cold weather is most to be feared.

The growing of the rough lemon, sour orange and other stock in Buckeye Nurseries preparatory for the budwood is an interesting development. Seed is grown in beds made up in rows very much the same as other seeds are grown. Frequent cultivation is given the plants and the greatest care is taken so as to produce a strong, vigorous root-system. When the trees are one year old they are transplanted to the nursery proper, in rows sufficiently wide apart to permit of frequent and easy cultivation. Here they remain for two full years before they are budded to the varieties for which the future demand is apparent at the time. It is the practice of some nurserymen to sell trees not more than one and a half to two years old from the seed and some of those who do not know better are often influenced to take these trees because of the low price. In hundreds of testimonials from patrons of Buckeye Nurseries they dwell especially upon these points; the early blooming and bearing period of Buckeye trees and their vigorous growth and rugged health largely attributed to their root age and development.

A citrus tree must attain a certain age before it should be permitted to bear fruit. The tree itself cannot be stronger than its root-system, and



Ready to cut back and transplant from nursery to grove

should not be expected to bear until the root is seven years old from seed. A good, strong bud on a four-year root will produce a fair crop the third year, but a heavy crop cannot be expected until the fourth or fifth year. Grapefruit, which grows more rapidly than the orange, frequently makes a paying crop the third year after planting if properly fertilized and well cared for. Ascertain from your nurseryman the age of the root of a budded tree rather than the lowest price. Many growers, particularly beginners, make the mistake of buying a small tree of tender root age because the price is low. In the end they will find that the larger tree, with proper age to the root system, is much the cheaper.

Buckeye Nurseries, with thirty-five years of exclusive citrus experiments and scientific study, have demonstrated many things that have helped this great Florida industry.

Here is an illustration of the advantage of using large, well rooted trees in the beginning. Buckeye Nurseries planted 40 acres for a customer, putting out 4,000 trees, of which 2,300 were small buds of the 2- to 3-foot grade. The remaining 1,700 were strong 5- to 7-foot grade. The third year after planting 1,400 boxes were shipped from the 1,700 trees. The next year the grapefruit crop was short, but in spite of this the 1,700 trees produced 1,000 boxes, and in the fifth year were loaded with an enormous crop. At that time the 2,300 smaller trees were just showing some scattering fruit, and while it cost as much per acre to care for and fertilize these small trees, the results were all in favor of the large and what has proved to be the cheaper trees. In the planting of citrus trees the best is always the cheapest.

It is because Buckeye Nurseries adhere so strictly to what their many years of experience have proved to be the best way that the products of the nurseries have won the distinction of "Buckeye Trees Bear." In budding, the budwood is cut from specimen trees that are absolutely true to name. The utmost care is exercised in the selection of all budwood and under the Buckeye Nurseries system there is absolutely no chance for a mixing of varieties. The strong, vigorous character of the root-system of the Buckeye



Three sizes of Buckeye trees—observe the root system

stock is observed in one of the accompanying illustrations where three sizes of budded stock are shown. Another picture shows stock 4 feet high, yet at the time the photograph was made it represented not over three months' growth from the bud. Other illustrations in this catalog emphasize the health, vigor and splendid growth of Buckeye trees from the nursery stock to the perfectly fruited trees.

Nursery stock is weakened in vitality from overfeeding or stuffing as surely as by starving. Buckeye trees come along in a more natural way. It requires a year longer to put them on the market, but Buckeye Nurseries have the satisfaction of knowing that this one year is bound to tell in the future development of the tree. It costs Buckeye Nurseries more to grow trees in this way than if they were forced upon the market earlier. The extra time they are in the nurseries is a direct expense in care, cultivation and feeding, yet Buckeye Nurseries prices will, by comparison, be found no higher than those of competitors. Under the Buckeye system of grading the proprietors of Buckeye Nurseries know that they are supplying a better tree for the same money with a root age from 12 to 18 months older. In the ultimate success of a grove the quality of the trees is one of the most potent factors. Buckeye trees are in every way quality trees to be depended on.

In the warm, sandy loam at Winter Haven, in Polk County, where Buckeye Nurseries are located, there is ample food for vigorous, healthy growth, but the roots have to go after it. The outcome is that the young plant begins to hustle from the time it bursts from the seed covering. There is an abundance of food within reach but it must put forth a multitude of roots in order to get all that it needs. The result is what is so much desired; a perfect root-system penetrating the ground in every direction. The tree itself becomes strong and vigorous, enabling it to resist disease and attacks of insects. Its early activity provides the vitality which makes for long life and productiveness. Transplanted to richer soils the tree is in a position to make the most of the more favorable environment and the ultimate result is heavy crops of high-grade fruit.

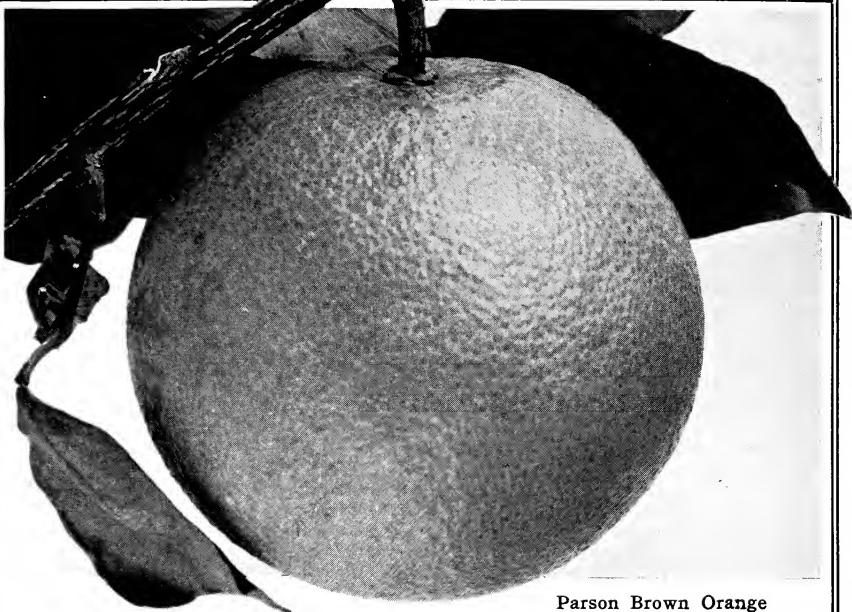


Valencia Late Oranges  
(For description see page 20)

## ORANGES

**B**UCKEYE Nurseries during the past few years have concentrated upon the propagation of a few time-tested varieties of Oranges in anticipation of the time when all the growers of Florida will not consider any other than half a dozen kinds. There are upward of one hundred varieties of Oranges, but the line of demarcation is so slight that a great majority of them have been eliminated from the nurseries.

**C**The test of years has centered upon the best varieties with marked distinctions. These are the early kinds, the midseason varieties and those which prove to be the best for the late spring and summer seasons. Then, too, attention has been given to soil and climatic conditions, so that all conditions may be successfully met from the stock of Buckeye Nurseries.



Parson Brown Orange

## VALENCIA LATE ORANGE

**O**F ALL the late varieties this is generally conceded to be the very best. It is ripe and ready for the market at a time when practically all other Florida Oranges have been disposed of, and before the California fruit of the same name is ready to ship. The Valencia Late Orange cannot be too strongly recommended for future planting. The tree is a very rapid grower and is exceedingly prolific. The fruit is popular in size, and it is firm up to the last of shipping time. The flesh is deep red, deliciously flavored, and for quality and quantity of juice there is no fruit to compare with it. The future citrus industry of Florida will see the Valencia Late popular and constantly increasing in favor. It is a fruit that will always sell well and prove remunerative to the grower. It is ready for market March 15 to April 1, and can be held until late May or early June.

## PARSON BROWN ORANGE

**T**HE most popular early Orange grown in Florida is the Parson Brown. No other variety has a more promising future. Its chief claim to exclusive prominence is that it ripens early in October, not a few here and there, but whole groves of tree-ripened fruit. Not all of the fruit may be golden in color so early, but the October-ripe Parson Brown will stand the acid test. The fruit is uniform in size, of very fine texture and delightful flavor.

**C**l<sup>o</sup> Buckeye Nurseries propagate and offer to Florida grove-makers only the true type of Parson Brown stock, with the assurance that the fruit these trees bear can be entirely depended upon. A grove in the making that has the kind of soil and climatic conditions conducive to this popular variety should have a generous setting of Parson Browns. In past years a few growers have endeavored to palm off upon the trade oranges labeled Parson Browns, but which were not really this variety. The enforcement of the immature-fruit laws practically has put a stop to this sharp practice.



Thousands of Rough Lemon seedlings nearly ready to bud

## The Profitable Citrus Grove: Its Foundation

IF through many years of honest dealing a business concern wins the confidence of the public it can rely upon a generous patronage and general good will so long as fair treatment continues. This is adequate explanation of the year-by-year growth of business of Buckeye Nurseries and the ever-increasing popularity of their dependable products. Confidence, the keynote of business, is established by means of a long series of years of success, such as Buckeye Nurseries have enjoyed since their establishment at Weirsdale, in the southern portion of Marion County, in 1880, nearly 36 years ago. Under the skillful management of Mr. M. E. Gillett, then, as now, the active head of the enterprise, the business grew and in a few years Buckeye trees became favorably known all over the state.

The freeze of twenty years ago—fifteen years after the Buckeye Nurseries had been established in Marion County—suggested their removal to a point farther south. Mr. Gillett was convinced then, and time has verified his good judgment and farsightedness, that the citrus industry of Florida was destined to become a leading and profitable industry of the state. Search for a new location for Buckeye Nurseries was made. Mr. Gillett went so far as to conduct growing experiments in several locations to test out conditions, favorable and otherwise. As an outcome it was among the lakes of Polk County that Mr. Gillett found what he believed, and what since has proved to be, ideal conditions for the propagation of a high grade of citrus nursery stock.

Buckeye Nurseries were moved from Weirsdale to Winter Haven, in the heart of the beautiful Lake Region, in 1903. The nurseries are in soil that is 200 feet above the sea-level. It has perfect drainage due to the proximity of lakes on all sides which likewise have proved to be absolute insurance against frost ever reaching the nursery stock. Not a single tree has been



Packing-house of Buckeye Nurseries—clean trees with fine roots

lost from this cause since the nurseries were established in Polk County. Added to this protection it has been demonstrated that the soil is specially adapted for the best growth of reliable citrus stock. This sandy loam is deep and warm, the kind in which the young nursery trees produce a great volume of fibrous roots, such as is the first and most important requisite in young trees for transfer from the nursery to the grove. In some of the best commercial groves in the state Buckeye trees have proved that this excellent root-system, when trees are properly set and given reasonable care, develops fine, vigorous trees that absolutely cannot be excelled and very rarely equaled. At the time when the citrus industry began to increase, Buckeye trees, through merit, were in general demand and from that day until this it has been a task for these nurseries to develop enough of their dependable stock to meet the requirements of their customers.

Buckeye Nurseries have always given the utmost attention to the propagation of the best citrus stock possible. At the same time equal care and consideration have been accorded the packing and shipping of the young trees from nursery to grove. Before the first year's shipments were ready to leave the Winter Haven Nurseries, Mr. Gillett built and equipped the most complete and best-arranged tree-packing and shipping house in the state. A few years ago the constant increase in business demonstrated that this large two-story building was inadequate in capacity and a much larger and even more complete structure was erected to take its place. Today, through the successful effort of Mr. Gillett and his sons, Buckeye Nurseries have won the distinction of being the largest in the world devoted exclusively to the propagation of citrus-fruit trees, and these nurseries are today shipping the well-known Buckeye trees to every nook and corner in Florida, and in all the Gulf states where citrus trees are grown for commercial and ornamental purposes, as well as to Cuba, the Isle of Pines, Porto Rico, Jamaica, Mexico, and other foreign points.

The obligation of Buckeye Nurseries to the citrus-fruit grower does not end in the propagation of the choicest of stock and the packing and shipping





Buckeye planting-crew putting Buckeye trees out the right way

of trees so that they will reach their destination in the best possible condition, but there is maintained the Buckeye Planting Service, an important and busy department of these nurseries. Early in the history of Buckeye Nurseries it was recognized that the nurseries should get in closer touch with the planter, the man whose future success must depend upon the proper planting, cultivation and marketing of Buckeye trees, and on whose success, too, the future prosperity of Buckeye Nurseries must rest.

To guard against planting blunders which generally prove fatal to the planter and usually cast unjust reflection upon the nurseryman, the proprietors of Buckeye Nurseries established a Guaranteed Planting Service, operated as follows: "When any one customer purchases a large number of trees or a number of customers in the same locality club together and book their order for a sufficient number of trees to warrant it, to be planted at the same time, we will send our planting-crew to their land and plant their trees. And with each tree so planted goes our guarantee that these trees will grow." The charge for this service is nominal, barely covering cost of labor, and is governed largely on the distance of the proposed plantings from Winter Haven. Planters are required to have their land in readiness and properly staked. The Buckeye planting crew digs the holes, plants the trees, leaving a cup around each tree for watering. This watering is done by the owner. The grower knows that with this Buckeye stock, set in the Buckeye way, he has every assurance that with proper care during growth his grove will be a commercial success. This service form of contract will be furnished on request.

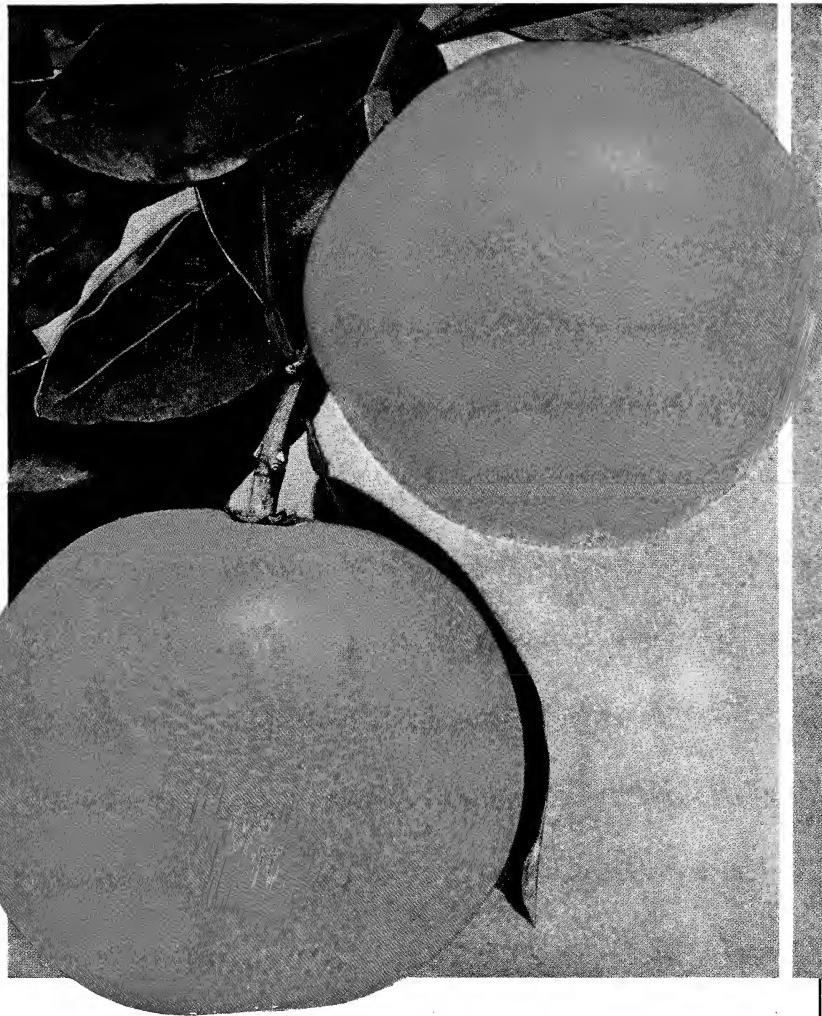
The Service Department of Buckeye Nurseries keeps the grower in constant touch with the nurseryman. Service is the watchword, and throughout the year Buckeye experts are in the field inspecting the groves, offering advice and suggestions when requested, and rendering the growers every assistance possible to bring Buckeye trees to satisfactory maturity. These men are experienced growers, and frequently they are able to correct faulty conditions and save time and money in the creation of a profitable grove. It is



Fine grove of Buckeye trees one year after planting

the aim of Buckeye Nurseries to keep in constant touch with a customer. The success of a fruit-grower means the success of the nurseryman. Buckeye Nurseries place at the disposal of customers the benefit and results of thirty-five years of experience in the citrus industry of Florida. This Service Department will furnish information at any time as to the proper methods of cultivation, fertilization and spraying. Experience covering a third of a century in the handling of matured groves as well as in the production of nursery stock makes the Buckeye Service of incalculable value to growers of oranges, grapefruit, limes and lemons.

Buckeye Nurseries grade all nursery stock by height, supplemented by giving the approximate caliper of the different grades. Customers should permit the nurserymen to cut back all trees before packing so that the top and root will balance. There is always considerable loss of roots when a tree is taken from the nursery and a proportionate amount of top should be removed. The man who digs the trees is the one to judge the right proportion between top and root. Let him do the cutting. Buckeye trees are rushed from the nurseries to the packing-house without undue exposure to sun or wind. They are carefully and scientifically packed. Cypress shavings, thoroughly moistened, used by Buckeye Nursery packers, are the best for packing purposes. Buckeye Nurseries have a private siding freight and express office at their packing-house at Winter Haven, and the packed boxes are trucked directly into the cars, and there is no delay in dispatching orders as they are received. Buckeye trees go from the nursery to the customer with a minimum of exposure. It's the "Buckeye Way," and the proof that this way is the best way is proved in that Buckeye Nurseries seldom receive a complaint. Buckeye Nurseries represent responsibility and reliability. Their pledges, promises and guarantees are fortified with a substantial financial backing, and their many years of successful business in Florida is in itself a warranty of fair dealing and active coöperation and affiliation with the citrus-fruit growers of Florida.

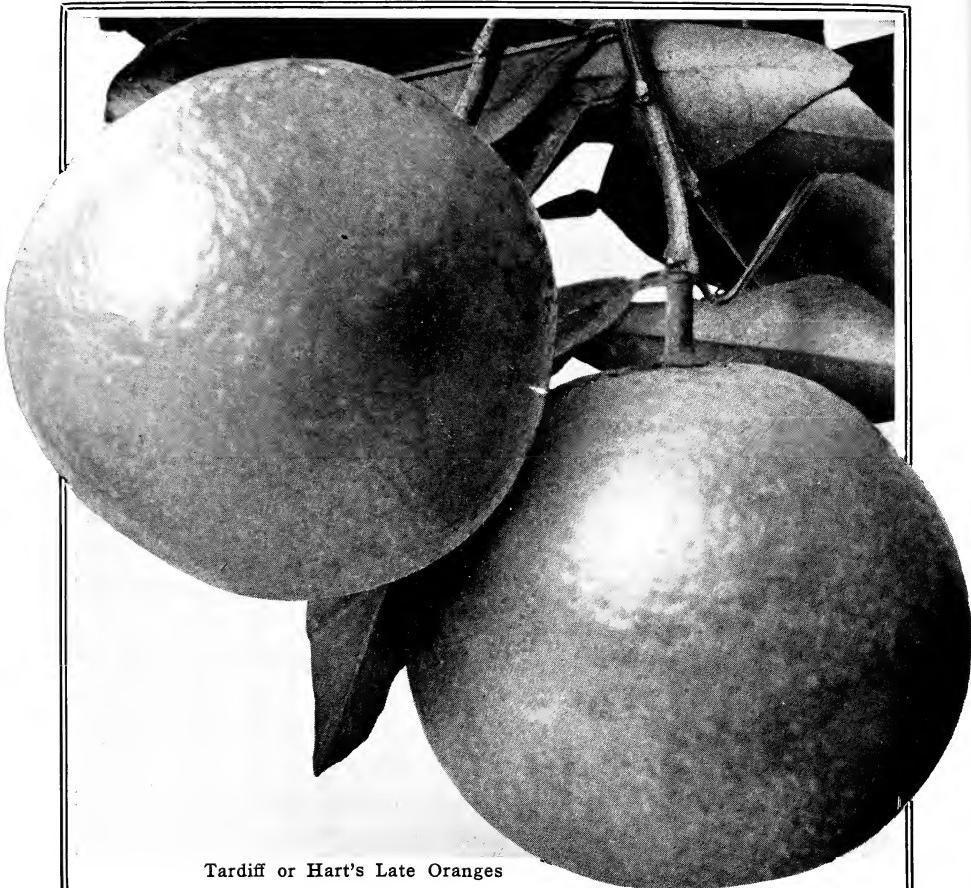


## PINEAPPLE ORANGE

**T**HE Pineapple variety of Orange derived its name from the similarity of bouquet with that of a pineapple. Before it was named, a grower in central Florida, on raising the covering from a box of this fruit, remarked: "They smell like pineapples." From that time this favorite kind has been known as the Pineapple Orange.

**C**The tree is strong and vigorous, symmetrical in shape; the fruit is from medium to large, and easily distinguished from any other variety in that the color is deep orange, with a reddish tinge when fully ripe. It is very handsome and attractive in appearance. In flavor it ranks with the choicest and best, being sweet, rich and rather spicy. The flesh is firm and of fine grain, and the juice is abundant.

**C**The Pineapple is classed among the midseason varieties of Florida Oranges. It is mature about January 1, and can be kept on the tree until February and early March. It is a fine shipper, and on account of its



Tardiff or Hart's Late Oranges

**PINEAPPLE ORANGE, continued**

many excellent qualities in appearance and flavor it generally commands top prices in the markets of this country. Buckeye Nurseries recommend a generous planting of the Pineapple Orange, to cover the period between the ripening of Parson Brown and the late varieties, like Valencia.

## **TARDIFF or HART'S LATE ORANGE**

**T**HE Tardiff, or Hart's Late, is one of the oldest of the well-defined strains of Florida Oranges. It is stated by some authorities that Hart's Late is really the Valencia Late of California. If so, the Golden Gate state certainly owes Florida and Colonel Hart a debt of abiding gratitude. The fruit of the Tardiff is medium in size, from round to slightly oval, with very smooth skin and decidedly solid and heavy. The juice is abundant, acidity and sweetness being admirably balanced. The center contains very few seeds and the juice content is considerably above the average of the generally juicy Florida fruit.

**D**THE Tardiff, or Hart's Late, is one of the very best of the late varieties. It is a general favorite among Florida citrus-growers for the reason that it can be depended upon as a good fruit for late shipments. When a grove is made from the best nursery stock, a Tardiff or Hart's Late grove represents the best there is for profitable citrus culture.



Land should be thoroughly cleaned before planting trees

## The Profitable Citrus Grove: Making It

THE cost of clearing and preparing land for a citrus grove varies with the different kinds of soil and the character of native tree and scrub growth upon it. On prairie land but little clearing is necessary and the cost is comparatively small. Heavy hammock lands are usually covered with a dense tropical growth, and the cost of clearing is necessarily much greater. No estimate can be given because it varies so much in different localities. On the ordinary high pine lands, however, such as exist in the Lake region of Polk County where Buckeye Nurseries are located, the following is a safe estimate of cost per acre: Clearing and removing all stumps, ready for the plow, \$25; breaking and cross-plowing, \$5; picking up and burning roots, \$2; harrowing, \$1; five-strand wire fence, \$7; making a total of \$40 per acre preparing land ready for planting.

It is desirable to break your land and get it prepared as far ahead of the time of planting as circumstances will permit; several months at least in advance of the time you expect to plant. This, however, is not absolutely necessary. Owing to delays and difficulties in getting land cleared, it is sometimes plowed and harrowed just before the planting is done. Some of the best groves in the state have been made this way. All Florida soil contains more or less acidity, but can be neutralized by the application of lime or hardwood ashes. Lime in Florida is extremely cheap and very popular for this use. Many growers are applying lime to newly cleared land at the rate of two to three tons per acre. It is immaterial whether this lime is applied prior to the planting of the tree or the year following. A very good practice is to prepare the holes for planting a month to six weeks prior to placing the trees in the ground and mixing in with the soil for a distance of four to five feet around where the tree will be planted, four to five pounds of Canadian hardwood ashes. This, however, is not essential and, if the



Proper initial care insures a thrifty grove

planter is rushed to get his land in shape for planting, the application of lime the season following will bring about the desired results.

The safest planting season for Florida is in late December and through January and February. Trees in Florida have generally completed their growth about November 1. From that time until spring they virtually go to sleep. There is no sap moving and the bark and limbs are firm and well matured. It is the one season when conditions are favorable for the handling of young trees. The danger from exposure to sun and wind is reduced to a minimum. The weather is cool and the land into which the trees are to be transplanted is just as it should be—cool and moist. These conditions assist the roots to heal or callous over, which must be done before they can make a new start. Some horticulturists contend that it is best to wait for the rainy season for setting when no water is required during planting.

Orange, grapefruit, lemon and lime trees are surface feeders and must not be planted too deep. It is better to set the trees several inches too high than one inch too low. Planted as they should be, they stand slightly above the general level of the land, and all excess moisture drains off. When planted too low, a basin or cup is formed about the tree. In the wet season this depression may hold water for days, a condition which proves disastrous as a rule. A tree must never be set deeper than it stood in the nursery.

### Best Planting Methods

Many trees are temporarily and frequently permanently injured by exposure at time of planting. Too often this most important work is entrusted to ignorant, careless help, who have no interest in the final outcome. Many cases have come to the attention of Buckeye Nurseries where the trees were removed from the damp shavings in the boxes in which they were packed, and were piled up in the field where they had little if any protection from sun and wind. By the time they were all planted a good many of them were just about dead. Naturally such trees fail to start as





When trees are given the right start, success follows

they should. Then the nurseryman is blamed, as the planter stands ready to prove that he took most excellent care of the trees. There is no reason why anybody should lose any appreciable amount of Buckeye trees if ordinary care is exercised in handling them after they are received. In large plantings it sometimes facilitates the work to heel them in in different parts of the grove, but the following method is suggested, which is absolutely safe and is just as economical as any other plan which has ever been tried. Put the box containing the trees in a wagon, open and remove the trees only when the holes are ready. See that the men who are handling the trees do not take out a large bundle of them and carry about under their arm, as is frequently done.

If you find it necessary to take the trees out of the boxes, pack them carefully in the wagon body, and cover with plenty of shavings or wet sacks. Wet them frequently while the planting is going on. Open the holes for the trees with a hoe, making each hole large enough to receive the roots without cramping, and having each hole fresh dug just ahead of the planter. Thus the tree is put into fresh soil and there is less danger of drying out before the water-wagon reaches it. When land is underlaid with hard-pan or rock the use of dynamite has proven very successful. It shatters the hard substance below and gives the roots a chance to penetrate where otherwise they could not get below this obstruction.

Buckeye Nurseries are frequently asked how far apart trees should be set in the grove. In the Lucerne Park plantings where Buckeye Nurseries put out over 1,000 acres, the trees were planted 25 x 25 feet each way. Ten acres of land is 435,600 square feet. Beginning  $17\frac{1}{2}$  feet from the fence on all sides, which gives ample room for turning, you will get 26 trees each way, or 676 trees to ten acres. Plantings 25 feet apart will give larger returns than plantings 20 or 30 feet apart. Many growers of Buckeye trees write to ask what they are to do for the trees after they begin to grow and how far up to take off the sprouts. Individual trees require different treatment, but enough of the sprouts should be left at the top to form a compact, symmetrical



These trees were started right and produced abundant fruit

head, and nothing should be allowed to grow below this after the tree has been planted and has started to grow in good shape.

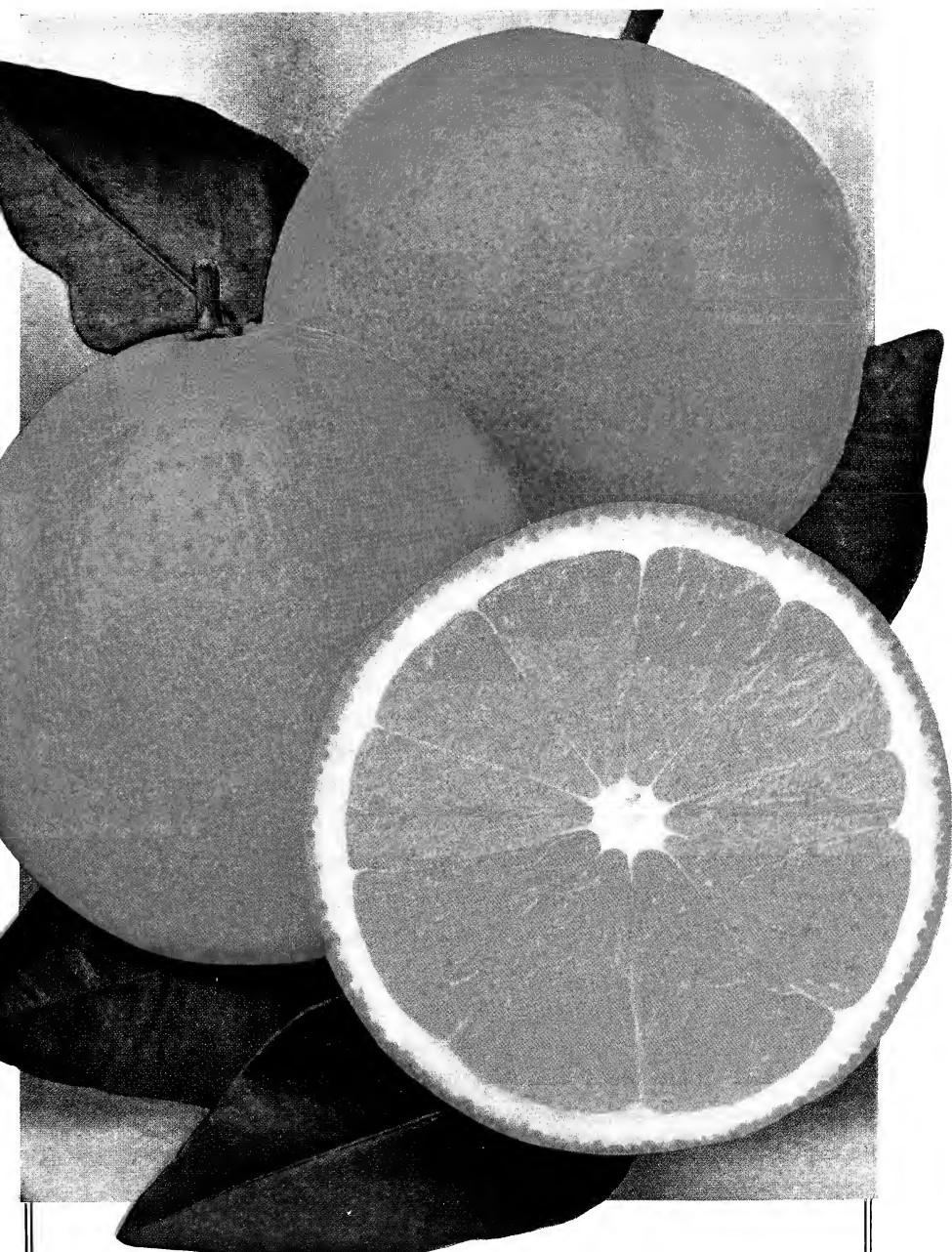
### After Care

Much depends on the weather, but as a general proposition it pays to water trees. A great many groves are planted for non-residents or by people who are in Florida for the winter. They have their trees set out and return to their northern homes, entrusting the grove to the care of somebody who agrees to give it proper attention. Ordinarily during April and May the weather will be hot and dry, and trees which have started to grow will begin to wilt. Too often their cry for water goes unheeded, with the result that many are lost and all are injured.

It is so much easier for the caretaker to report to the owner in explanation of loss that some of the trees had poor roots or that there was some other fault with them, than to tell the truth, that the loss was caused solely because the trees suffered for water. As a rule, the nurseryman has to carry all the blame. Trees must have water during the first year or until the roots take firm hold of the soil, and if it fails to come in the natural way by rain, it must be supplied, otherwise some loss in a newly planted grove is inevitable. Remember also that even though a tree lives, just barely pulling through without actually dying, its vitality has been impaired, and it will not make the vigorous tree it would have made had it been properly watered.

Large acreage of winter-planted trees have been carried through a long drought successfully by the use of an Acme harrow once a week. When it becomes necessary to water, the best plan is to make a large cup about the tree giving it at least six to eight gallons of water. As soon as the water settles, cover the wet earth with dry soil or sand and then start your Acme harrow and keep it going. Usually one thorough watering is all that winter-planted trees require. When trees need water, they begin to wilt and show signs of distress.





## LUE GIM GONG ORANGE

**L**IVING near Deland, in Volusia County, to this day, is Lue Gim Gong, a Chinese, and the originator of the famous Lue Gim Gong Orange. This comparatively new variety has been so thoroughly tested that it is evident the Lue Gim Gong will prove one of the best money-makers in the citrus line ever produced in Florida. So far as can be learned,

#### LUE GIM GONG ORANGE, continued

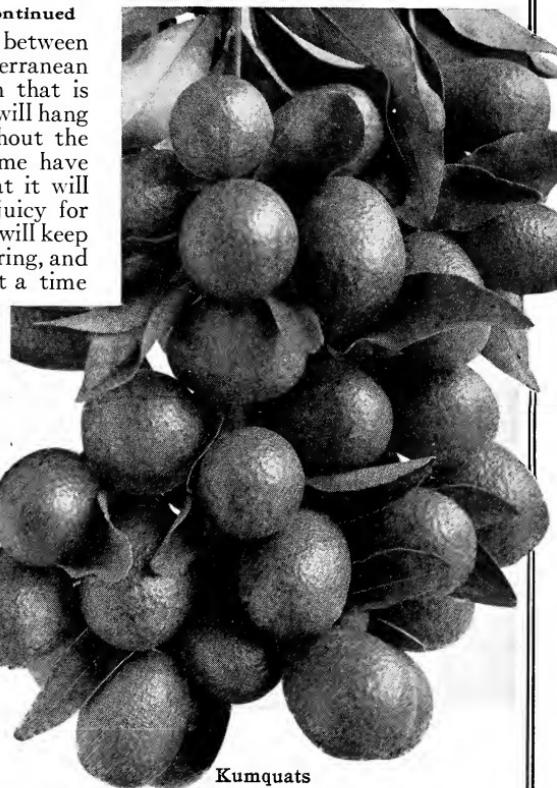
the Lue Gim Gong is a cross between Hart's Late and the Mediterranean Sweet. The strongest claim that is made for this fruit is that it will hang on the tree indefinitely without the slightest deterioration. Some have gone so far as to assert that it will hang perfectly sound and juicy for two or three years. The tree will keep right on blossoming and bearing, and the fruit can be marketed at a time when the country is without any other citrus fruit. Several growers have rebudded entire groves to the Lue Gim Gong variety, and a large acreage in new groves is being planted to this remarkable strain.

**D**The size of the Lue Gim Gong Orange is medium to large, usually about 150 to the box. The color, when ripe, is deep red, and this color it holds until gathered. The skin is smooth and thin for the first year, but thickens the longer it hangs on the tree. The flesh is divided into the usual ten or twelve sections, is easily

separated, and is of a deep orange-color, resembling the Hart's Late. The meat is juicy, with a blend to suit the most critical taste. The Lue Gim Gong is a well-balanced fruit and has been tried out for a sufficient period to prove many things claimed for it. Several well-known Florida citrus-growers who have known Lue Gim Gong for years, and who have been frequent visitors to the little grove of this prominent Chinese, have rebudded old groves of considerable value to the Lue Gim Gong variety, believing that these will soon become the best-paying citrus properties in Florida. It is a significant fact that two years ago Buckeye Nurseries shipped five trees to a customer in Valdosta, Georgia, for ornamental purposes,—two of the Oranges were of the Lue Gim Gong variety. Last winter all the trees were frozen to the ground except the Lue Gim Gongs; they were not injured in any way,—a strong claim for the hardiness of this variety.

## KUMQUATS

**T**HIS is the smallest Orange, to the cultivation of which special attention is given. It may be eaten skin and all, and it makes a most palatable marmalade or jelly. There are two varieties, the Nagami and the Marumi, the latter being considered the more desirable. The fruit is oblong, from 1 inch to  $1\frac{1}{2}$  inches in diameter. The rind, a deep orange-yellow, is sweet and spicy. The pulp is tender, with an agreeable but distinctive acid flavor. The tree or bush is a prolific bearer and the fruit has a commercial value largely on account of its popularity as a delicious preserve. No grove is complete without the Kumquat.



Kumquats



Proper care produces bumper crops of fruit

## The Profitable Citrus Grove: Its Care

CITRUS trees are not free from the attacks of pests and diseases, yet they are less subject to troubles of this kind than other fruit trees. The most widely distributed disease is that known as "die-back." It will attack all varieties and in all localities. It is easily recognized. The young twigs turn brown and then die back several inches. In its advanced stage it forms dark brown blotches on the fruit, followed by cracking and splitting. The cause is poorly aerated or sour soil, or unsuitable fertilizer. Study your soil, or fertilizer trouble, and correct it as soon as possible. Other citrus-tree diseases are attacks of fungi, affecting roots, stems, branches and leaves. Most of these fungous diseases are cured by spraying, and a cure is quickly effected if done at the right time. The director of the Government Experiment Station at Gainesville, Florida, will furnish bulletins containing all the needful information on citrus pests and diseases and the approved methods of eradication.

### Spraying and Irrigation

The frequency for spraying a grove is largely a matter of local conditions, the diseases or pests prevailing in the vicinity, and the frequency of rains. The heavy spring rains which fall when insects and diseases are most prevalent wash off the sprays generally used, therefore the grove should be closely watched and remedies resorted to at the first sign of trouble. In almost every grove some of the common insects and diseases may be found, but if the trees are robust and healthy they successfully resist any ordinary attack. As in all animal and vegetable life, the more vigorous the subject the more easily is disease warded off and a check put on the ravages of insect pests. Feed the trees intelligently, cultivate them properly, and growers need have



Citrus trees demand an abundance of water

no fear of the ordinary insects. Buckeye trees are as clean as it is possible to grow them. Every tree has been passed by the State Inspector of Nursery Stock after a critical and thorough examination. As a further safeguard every tree shipped is washed and scrubbed with a chemical solution, which insures that it will reach the customer absolutely free from any animal life. When you plant your grove start out with clean, vigorous stock. Be watchful, feed generously, cultivate properly, spray at the right time, and insect pests will give you no worry or trouble.

The average annual rainfall in Florida is about 60 inches. Its distribution is light through the fall, winter and spring, heavy in summer months. When citrus trees need it most, therefore, nature has provided well for the orange, grapefruit and the lime tree, and, generally speaking, irrigation is not necessary in most sections of the state. In the highlands of the lake region artificial watering of citrus trees is not required, although it is often desirable in the young groves. Whenever there is a drought extending over an unusual period trees are generally kept well nourished by means of extra cultivation. In the flowing artesian well sections the question of irrigation is quite easy of solution, but in the limited area where the rainfall is not sufficient and where irrigation is impossible or even difficult and expensive, it is not worth while to attempt to start a citrus grove. There is too much good land where rainfall is ample, or where flowing artesian wells can be had at very little cost, to think of bothering with land in a section that does not possess these necessary advantages.

Unless the young citrus tree has an abundance of water it will not make a normal growth. The young fruit will fall off and such as is brought to maturity will be deficient in juice and inferior in flavor and quality. Bear these facts in mind before investing your money in a grove. Remember that the citrus tree is evergreen and knows no cessation of transpiration. It must have moisture all the time. Unlike the deciduous fruit trees the citrus tree has no period when it drops its leaves. Irrigation in Florida is only in its infancy. Probably less than two per cent of the citrus groves of





Cultivation and fertilization insure thrifty groves

the state are irrigated. By this it will be understood that while the facilities for irrigating a grove are desirable they are not absolutely necessary. Some growers have installed sub-irrigation by means of iron pipes. Others have put down tile or perforated pipes, but owing to the tendency of the fibrous roots of the citrus trees to plug the drain tile, it is not popular. Where groves are made in areas where there is a clay or marl subsoil within twenty-four inches of the surface, open ditches carry the water through the groves from the flowing wells satisfactorily and effectively.

### Cultivation and Fertilization

In making a citrus grove proper methods of cultivation play a very important part. There may be conflicting opinions upon this subject, but the experience of Buckeye Nurseries is that clean cultivation is best during the dry season, followed with a cover-crop during the summer or wet season. During the dry season the trees require every bit of moisture that there is in the ground. Frequent stirring of the soil retards evaporation by forming a dust mulch. By this means the moisture below is conserved and the trees have an opportunity to draw upon it. During the wet season the conditions are reversed. There is then more moisture in the soil than the trees require. Buckeye Nurseries recommend the planting of beggar-weed, cowpeas or velvet beans as a cover-crop for the summer season, preferably beggar-weed for the reason that it is a perennial and reseeds itself, while the cowpeas and velvet beans are annuals and must be resown each spring. These crops should be allowed to ripen before being plowed in. Turned in green they may create sourness in the soil, which is not desirable.

Cover-crops should not be allowed to grow nearer than three feet to the tree trunk. Frequent stirring of the soil about the tree with hoe or rake is very beneficial. After the cover-crop has been turned under in the fall the ground is left comparatively clean. This is important as a precaution against fire which sometimes damages groves littered with grass and trash. Cul-



Buckeye trees given good care bear heavily

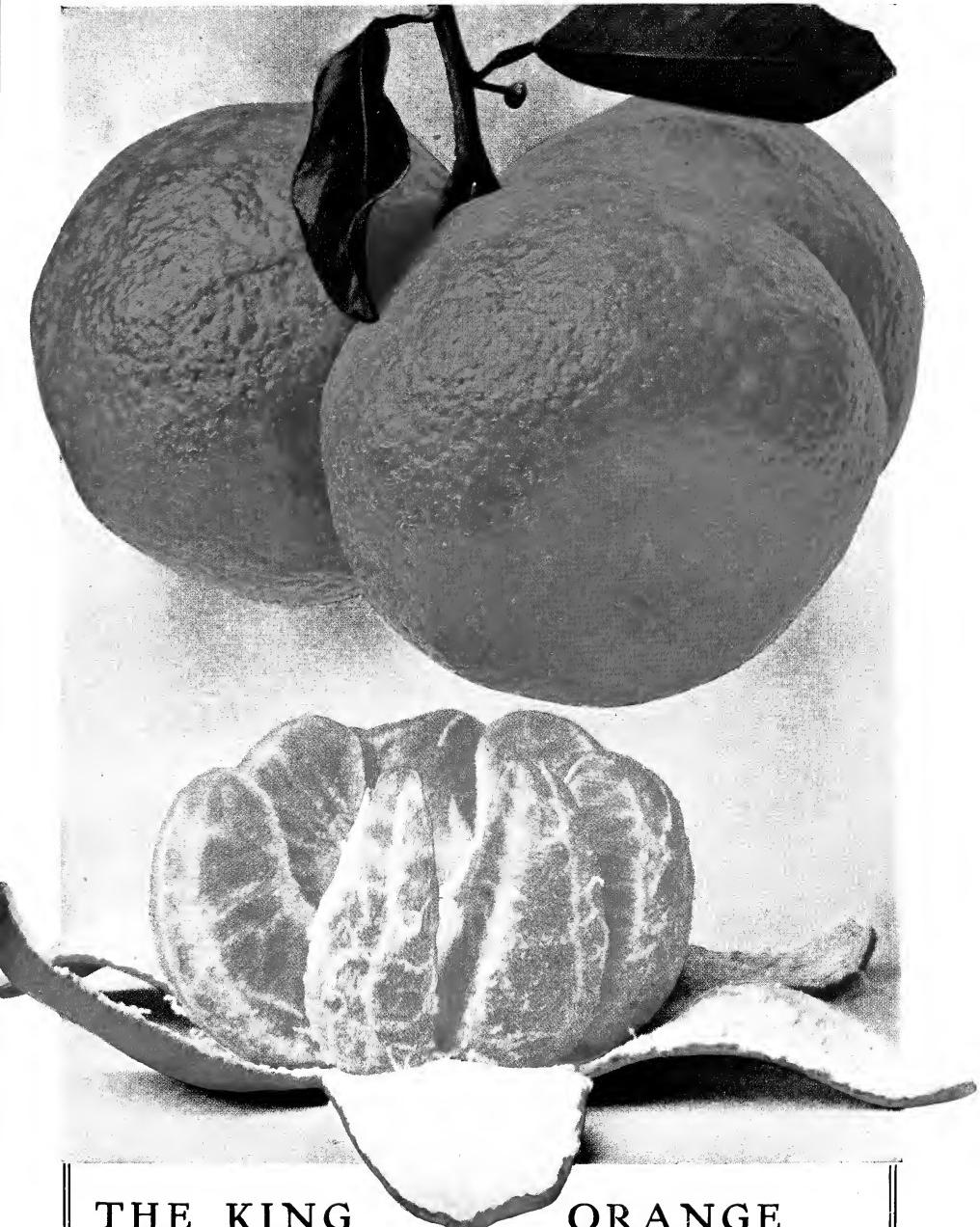
vation should be shallow rather than deep, the purpose being to form a dust mulch for the conservation of moisture rather than to break up the soil. The degree to which a grove may be kept thrifty and vigorous without irrigation during excessive dry weather by this simple method of frequent shallow cultivation is quite remarkable.

The field men of the Buckeye Nurseries staff very often find the help in a grove plowing so close to the trees that many lateral roots are torn out. In plowing do not go within four feet of the tree, and when passing the tree the plow should be raised so as not to penetrate the soil more than two or three inches. Work directly around the tree should be done with the harrow, hoe or rake. Buckeye Nurseries recommend the Acme harrow as the best tool for working close in, for no matter how careless the help the implement will not penetrate deep enough to injure the roots.

Buckeye Nurseries have learned by experience that it is best not to apply fertilizer when the young tree is first set out. Wait two or three weeks, then apply on the surface about one pound of high-grade commercial fertilizer, raking it in thoroughly. The proprietors of Buckeye Nurseries, covering an experience extending over thirty years, reinforced by numerous carefully conducted experiments, have proved that in the thin sandy soils of Florida a citrus tree will stand much more fertilizer than it usually gets, especially in the high, sandy soils overlaying yellow subsoils. On richer soils, such as hammock lands, less fertilizing is required. Citrus soil does not hold fertilizer for any length of time so there must be loss through leaching.

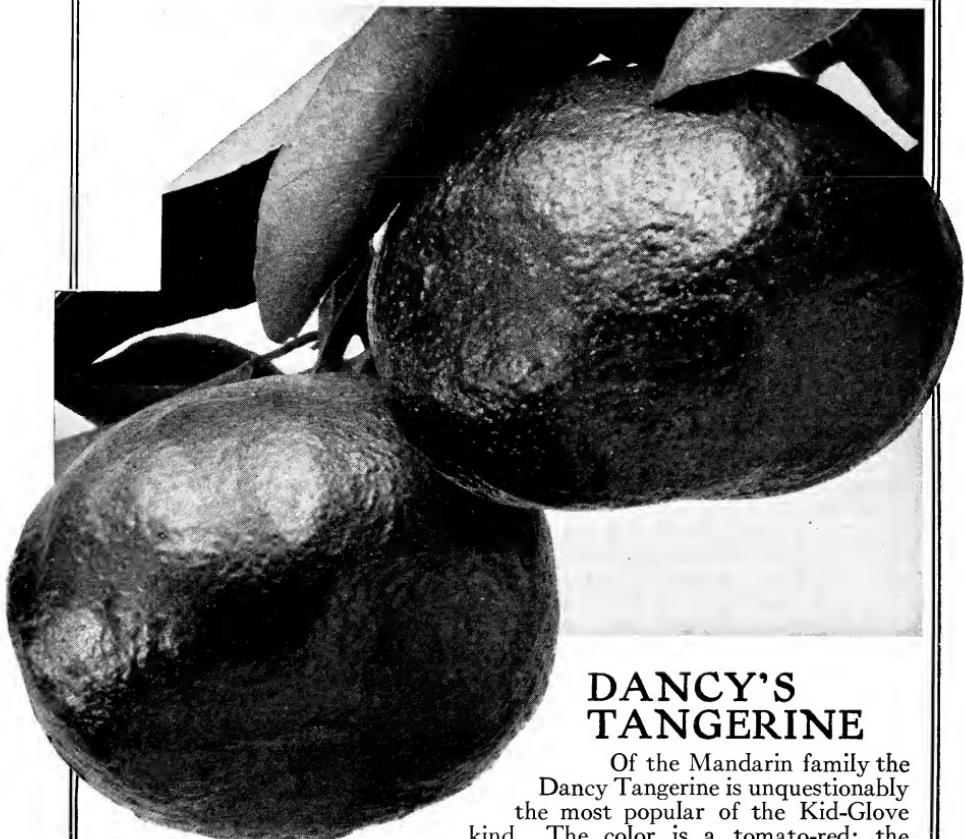
It is the Buckeye practice during the first year to begin with the rains and apply one pound of commercial fertilizer to each tree every six weeks during the growing season, after which time the tree becomes dormant and takes the rest nature provides. The amount of fertilizer should be increased from year to year and the formula changed as the age and requirements of the tree demand. Under no circumstances do Buckeye Nurseries advise the use of stable manure unless it is exceedingly well rotted. Green manure is almost certain to give trees the "die-back."





## THE KING ORANGE

**T**HIS is the monarch of the Tangerine family, the most popular and the most profitable. The deep red-orange flesh, full of delicious and delicately flavored juice, adheres loosely to the rind, which is easily opened with the fingers. The King Orange ripens late and is at its best during March and April. The King is practically a new fruit, and at the present time the demand is sufficiently in excess of the supply as to make the marketing of the King Orange very remunerative.



## DANCY'S TANGERINE

Of the Mandarin family the Dancy Tangerine is unquestionably the most popular of the Kid-Glove kind. The color is a tomato-red; the skin is easily removed from the flesh, and the sections are separated without soiling the fingers,—therefore the name Kid Glove. The flavor of the Dancy Tangerine is very spicy and pleasant to the palate, and it is a strong favorite and generally a very profitable fruit to raise. The tree is a vigorous grower and prolific bearer, but like all trees of the citrus family, it requires the best of care to insure bright, heavy and juicy fruit. Tangerines are packed in what is called "straps" which are one-half the size of the ordinary Orange-box. Two of these are strapped together.

## THE SAMPSON TANGELO

**T**HIS is a new fruit, comparatively, and is a cross between a tangerine and grapefruit, the word being formed of the first five letters of tangerine and the last two letters of pomelo, the correct name of the grapefruit. The skin of the Tangelo is smooth, like the grapefruit. The flesh has a peculiar and very delightful flavor, being a combination of both, with that of the tangerine predominating, but toned down in sweetness by the acidity of the grapefruit.

**D**In size the Tangelo is similar to a fair-sized orange, being larger than the tangerine and smaller than the grapefruit. The United States Department of Agriculture calls attention to this fruit as a new and highly flavored type of orange. Buckeye Nurseries advise the planting of these trees in every citrus-grove and home ground.



Florida Citrus Exchange fruit on exhibition ready for auction

## The Profitable Citrus Grove: Marketing

IN the building of a profitable citrus-fruit grove in Florida several distinct elements enter. The best crop is worthless unless it is marketed to advantage. Therefore, the proper methods of marketing are of first consideration if the enterprise is to be made a paying one. Too much emphasis cannot be laid on the fact that the growing of good fruit solves but half the problem of making a grove pay. Fruit must be put on the market at the right time and in the right way. Between the tree and the final market, profits may be conserved or thrown away faster than in any other stage of the growing of citrus trees.

In this connection Buckeye Nurseries again commend to every citrus-fruit grower and every prospective grower the Florida Citrus Exchange, the only sound and businesslike solution of the marketing problem of the citrus grower of Florida. Not only does the Exchange market the fruit to the very best possible advantage but in its packing-houses it washes, polishes and grades the fruit and supervises the pack to obtain the very best shipping qualities. In five years the Exchange has placed the Florida citrus industry on a sound business footing, meanwhile enhancing the value of grove property at least 100 per cent. No matter how broad or restricted the scale of his operations there is not in Florida a grower of citrus fruits but would be profited through affiliation with the Exchange. To those who are just entering the citrus industry the Buckeye Nurseries desire to urge the earliest possible affiliation with the nearest local association operating under the Florida Citrus Exchange to the end that they may profit by the information which the Exchange is continually spreading among its members.

Carelessness in picking and handling and a slovenly pack are fatal to profits. Experience has demonstrated that pickers must be supplied with gloves to prevent finger-nail abrasions. Through this simple expedient



In the New York Citrus Exchange, buying Florida Citrus Exchange fruit

California growers made an actual saving of 10 per cent in rot, and members of the Florida Citrus Exchange have had a similar experience. Only clippers which cut a short stem without harming the fruit should be used. Picking receptacles which will hold the fruit without pressure and which can be emptied into the field-boxes without jarring the fruit must be provided. The field-boxes should be high enough at the ends to rest one on top of another without bringing the fruit in the under box in contact with the bottom of the box above. Spring wagons should be used for hauling the fruit from the grove to the packing-house. No fruit showing an abrasion of any kind should be allowed to pass. "Regard every doubtful orange as a cull" is the watchword of the Florida Citrus Exchange.

Packing is a study in itself, and the relation of pack to profits is very close. If there is no Florida Citrus Exchange house in your vicinity confer with your fellow growers and organize a local association. Visit the nearest good packing-house—one which has won a reputation for its brand—and study the subject under an expert there. The old-time packing-shed is rapidly becoming a thing of the past. The human hand must not be allowed to touch the fruit. All persons who handle Exchange fruit are compelled to wear white gloves. Ninety per cent of the improvement in packing methods and packing-house equipment which has revolutionized the citrus industry in Florida must be credited to the Citrus Exchange. From its inception this organization has had the consistent and helpful support of Buckeye Nurseries. In fact, Mr. M. E. Gillett, the head of the Buckeye Nurseries, took the time from his other many interests to serve as the manager of the Exchange for the first and most difficult year of its history. The present year finds the Exchange much stronger than ever before and a vital factor in the business life of Florida. For this and other reasons already stated it is urged that every grove owner become affiliated with the Exchange if he has not already done so. Every grower in Florida is eligible to join. For non-resident grove owners the Exchange is a great convenience. It takes entire charge of the crop; picks, packs and sells, and remits the returns.



Model packing-house of the Buckeye Nurseries

## Future of the Grapefruit

THE following comprehensive and convincing article is from the August 7, 1915, issue of the "Florida Grower:"

Suppose the wheat or corn-growers of the West should abandon the planting of crops because of one bad year and the attendant low prices. Suppose the cotton-growers of the South should discontinue the planting of this important crop, because conditions entirely beyond their control caused one adverse season. Suppose the stockmen of the country should suspend operations because of the presence of the foot-and-mouth disease in a certain locality of the United States. Suppose the great manufacturing plants of our country should liquidate and close their doors because there has been no demand for their product for the past year. It would be just as musical to the ears of the pessimist to suppose the Grapefruit industry of Florida had gone to the "bow-wows" because of low prices prevailing for a portion of one season. Was not the same cry heard of wheat when the West was developing so rapidly,—and of corn? Did not the pessimist say there would be more grain produced than could be consumed, and that prices would not bring to the farmer cost of production? Compare prices for the past two or three years with any similar period twenty-five years ago. Suppose the farmer had heeded the pessimist. Would he be enjoying the harvest which has come to those thrifty settlers of the West?

The writer of this article believes the day of \$5 and \$6 per-box-on-the-tree Grapefruit has passed, and it is a blessing to the industry. The successful grower of citrus fruits in Florida knows that Grapefruit at \$1 per box on the tree is a veritable gold mine. He knows they cost less to grow, pick, haul and ship than oranges; that it requires less units to make a box; that Grapefruit trees are more prolific and seem less subject to disease. Florida Grapefruit is today recognized in all markets as second to none. California admits the superiority of our fruit. Cuba, Isle of Pines, and Porto Rico market their product much earlier than Florida, and if our crop is intelligently

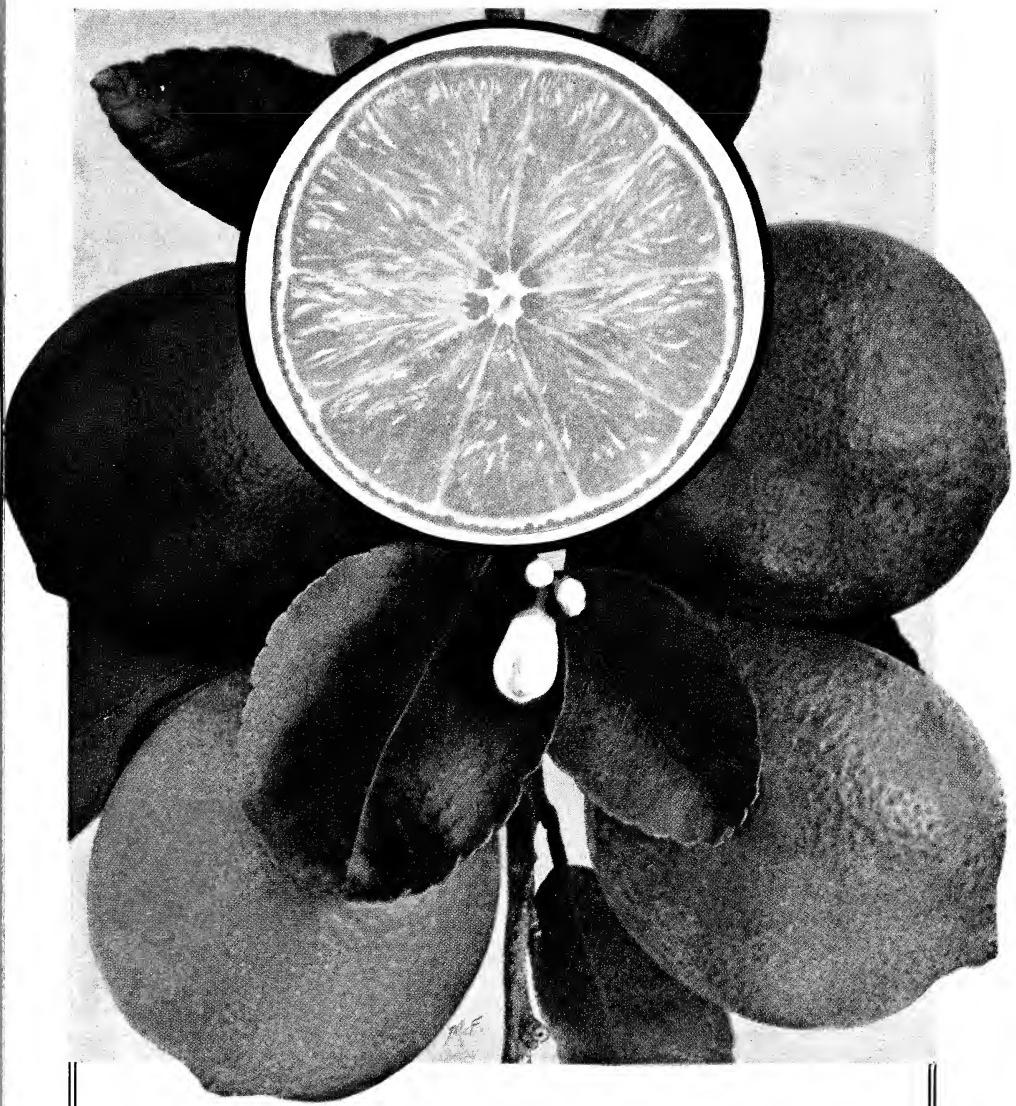


**Buying Florida Oranges by the box—the delivery**

handled theirs is out of the way. This now narrows the territory down to Florida as practically the only area in the United States where the Pomelo can be successfully and profitably grown. Can anyone who has made a study of the situation seriously say this state can over-produce, with the sales territory being constantly enlarged and the population of the United States increasing faster than the acreage is being planted in Florida? It is a known fact that there are hundreds—yes, thousands of hamlets throughout this country of ours which have never yet seen, much less tasted, the Grapefruit. And then look at Europe. The writer has had occasion to ship numerous small lots of Grapefruit to England and continental Europe within the past ten years, and has made inquiry as to how each shipment was received. Wherever the fruit was properly prepared it met with instant favor.

There was never a more opportune time for the owners of land to improve it than right now. Labor is cheap, land can be cleared for less money per acre than at any time during the past twenty-five years. Nursery trees are cheaper this year, owing to increased production of the major nurseries of the state. The wise land-owner in Florida will grasp the situation and improve his holdings, and make the foundation for future wealth. Oranges should be planted in part, but Grapefruit should not be eliminated. In fact, at least one-half of any commercial planting should be included of this variety.

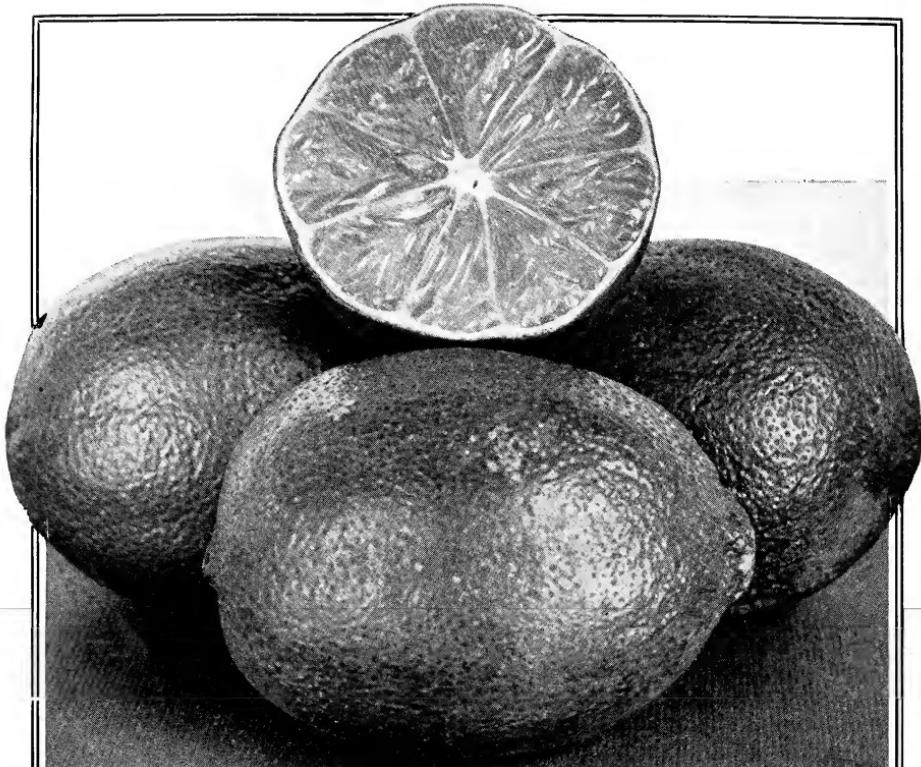
It is a significant fact that at this time independent growers are offering in some parts of South Florida from \$1 to \$1.50 per box on the trees for Grapefruit for next season's shipment. When the independent buyer (the speculator) offers this, those familiar with the industry know they may expect much higher prices to prevail. The wise grower will hold his fruit, join the Florida Citrus Exchange, put his crop through that wonderful marketing medium and will, as usual, profit most. A crop failure has never been known. Acre for acre, citrus-fruit growing is the most profitable line of endeavor of all other lines of horticulture or agriculture. It is a clean, healthy, happy business. The citrus grower produces something from the soil, therefore he is a builder, and a builder is a valuable citizen to any state or community.



## TAHITI or PERSIAN LIME

**T**HE day is not far distant when Tahiti or Persian Limes will exceed in popularity the choicest lemons, and as soon as they reach that stage they will speedily surpass the older fruit. This new Lime is very little known, although Buckeye Nurseries have been budding it and preparing for the certain demand which has already set in. This year, for the first time in the Florida citrus industry, groves of considerable size have been set out with the Tahiti or Persian Lime. The tree grows rapidly and vigorously, and will begin blooming and bearing two years after transplanting from the nursery to the grove.

**¶** The tree is almost constantly in bloom, and in consequence the fruit is in different stages of development every month in the year. A two-year-old tree from the planting has been known to carry 168 Limes at one time.



Seedless Villa Franca Lemons

**TAHITI or PERSIAN LIME, continued**

The fruit grows to about the size of an ordinary Sicily lemon. The juice content, however, is greater, and the flavor is less acid and much more agreeable. It is quite similar to the taste of the Key Lime over which the Tahiti or Persian Lime has the advantage of being three or four times larger.

**C**L The skin of the fruit is very thin and is very slow to color; in fact the fruit is ripe while the skin is quite green. This fruit is destined to become the favorite for use in soda-water fountains and in the pantry. The Tahiti or Persian Lime is practically seedless. In building a new grove or in making over an old one you are urged to plant a liberal number of these Lime trees. In the few places through citrus Florida where the trees are in bearing the demand enables the growers to realize a very handsome profit.

## SEEDLESS VILLA FRANCA LEMON

**B**UCKEYE Nurseries have propagated many varieties of Lemons and brought them to the fruiting stage. In these years of research it has been demonstrated that the Seedless Villa Franca is superior, and no other variety is budded. This Lemon originated near Dunedin, and while it closely resembles the Villa Franca it is a little smaller and practically seedless, most of the fruit having no seeds at all. The proprietors of Buckeye Nurseries consider the Seedless Villa Franca the best of all varieties and the most profitable kind to plant. Buckeye Lemons and limes are sturdy stock and full of vitality. Before the freeze of twenty years ago Florida shipped 140,000 boxes of Lemons. This fruit is again coming into its own in the southern part of the state. Lime and lemon culture should pay handsomely.



Buckeye planting-crew—Buckeye trees watered when set out

## A Certificate that is an Asset

WITH every purchase exceeding 100 trees, and for less quantity when requested, from Buckeye Nurseries there will be sent a certificate giving the number and variety, date sold, etc.

Assurance that groves were planted with Buckeye trees has come to be regarded by shrewd investors in citrus property as second only in importance to the title of the land.

The adoption of this certificate has been suggested to us by the number of inquiries we have had from purchasers of previous years, asking for information to give persons negotiating for the purchase of their groves.

In scores of instances that have come under our observation in the past few years, buyers paid a handsome premium for grove properties by reason of the fact that they were planted with Buckeye trees.

In a great number of cases negotiations for the purchase of groves have fallen through when it could not be established to the satisfaction of the intending purchaser that the planting had been of Buckeye trees.

A certificate from Buckeye Nurseries will be considered by purchasers of groves as giving protection similar to that afforded by an abstract of title. It will be readily seen that these certificates have a very considerable value, and may be regarded as an actual asset. If the owner should ever wish to sell, he will be greatly aided in doing so with this certificate in his possession.

The certificate is a work of art. On it is mounted a reproduction of a typical Buckeye tree, printed in a beautiful sepia tint. Below there is the name of the purchaser, his state, county and city, and a statement that he has bought of Buckeye Nurseries and planted in a specified vicinity such orange, lemon, grapefruit or lime trees as are listed on the reverse side of the certificate. There are the further statements that Buckeye Nurseries warrant these trees to be of the sizes specified, to be clean, thrifty and healthy in every respect, to be free of all insect pests, and to be true to name.

[45]

## Price-List

All varieties of Grapefruit (including the famous Inman Late), Oranges (including Lue Gim Gong), Lemons, Limes, Tangelos and Kumquats:

Grade	Each	10	100	1,000
2 to 3 feet.....	\$0 45	\$4 00	\$35 00	\$320 00
3 to 4 feet.....	55	5 00	45 00	420 00
4 to 5 feet.....	70	6 50	60 00	550 00
5 to 7 feet.....	90	8 00	75 00	700 00
2 years.....	1 25	11 00	100 00	1000 00
2-years, extra selected.....	1 75	15 00	140 00	1250 00

The average caliper of Grapefruit trees and the standard varieties of Orange is about as follows:

- 2- to 3-foot grade sold by height alone.
- 3- to 4-foot grade will caliper  $\frac{1}{2}$  to  $\frac{5}{8}$  inch.
- 4- to 5-foot grade will caliper  $\frac{5}{8}$  to  $\frac{3}{4}$  inch.
- 5- to 7-foot grade will caliper  $\frac{3}{4}$  to 1 inch.
- 2 years, branched, will caliper 1 to  $1\frac{1}{4}$  inches.
- 2 years, extra selected, heavily branched, will caliper  $1\frac{1}{4}$  inches and up.

We reserve the right to sell either by caliper or height. The King and Tangerine Oranges, as well as Lime and Kumquat trees, being of much more slender growth, will not caliper so large as the above.

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### Additional Information on Sizes of Trees and Grades

The different grades of all trees consist of the following ages of roots and buds:

- 2 to 3 feet carries 10-month bud, 30-month root.
- 3 to 4 feet carries 12-month bud, 36-month root.
- 4 to 5 feet carries 12-month bud, 48-month root.
- 5 to 7 feet carries 15-month bud, 51-month root.
- 2-years carries 24-month bud, 60-month root.

# Shipments

Inasmuch as planters are frequently not in a position to arrange for getting shipments through the custom house, either here or in Havana, we will have our brokers at each port attend to everything, prepaying all charges to the nearest port or railroad station, on the following terms:

## To Cuba and the Isle of Pines

On orders ranging from \$5 to \$10.....	add 30 per cent
On orders ranging from \$10 to \$25.....	add 25 per cent
On orders ranging from \$25 to \$50.....	add 20 per cent
On orders ranging from \$50 to \$100.....	add 15 per cent
On orders amounting to over \$100.....	add 12½ per cent

## To Porto Rico and Other West Indian Islands

On orders ranging from \$5 to \$10.....	add 40 per cent
On orders ranging from \$10 to \$25.....	add 30 per cent
On orders ranging from \$25 to \$50.....	add 25 per cent
On orders ranging from \$50 to \$100.....	add 20 per cent
On orders amounting to over \$100.....	add 15 per cent

If the above estimate exceeds the actual cost of transportation, port and custom-house charges, we agree to return the excess to our customers.

## Number of Trees or Plants to the Acre

Dis. apart, feet.	No. trees	Dis. apart, feet.	No. trees	Dis. apart, feet.	No. trees
1 by 1.....	43,560	10 by 10.....	435	19 by 19.....	120
2 by 2.....	10,890	11 by 11.....	360	20 by 20.....	108
3 by 3.....	4,840	12 by 12.....	302	25 by 25.....	69
4 by 4.....	2,722	13 by 13.....	257	30 by 30.....	48
5 by 5.....	1,742	14 by 14.....	222	35 by 35.....	35
6 by 6.....	1,210	15 by 15.....	193	40 by 40.....	27
7 by 7.....	888	16 by 16.....	170	45 by 45.....	21
8 by 8.....	680	17 by 17.....	150	50 by 50.....	17
9 by 9.....	537	18 by 18.....	134	60 by 60.....	12

## Branch Nursery at Howey

Buckeye Nurseries are establishing a branch Nursery at Howey, Lake County, Florida, to better serve their customers in that section of the state. Until such time as this branch Nursery is producing trees, all orders, of course, will be filled from the present extensive plant of Buckeye Nurseries at Winter Haven, in Polk County. The location of the branch of Buckeye Nurseries at Howey is in recognition of the rapid development of the Lake Region of Lake County in citrus culture, and to help solve the problem of producing Buckeye trees in sufficient volume to supply the constantly increasing demand for them.

## Notice

For all kinds of spray mixtures, send to the Florida Agricultural Experiment Station. Ask for Bulletin No. 76.



TAMPA, FLORIDA





Florida Citrus Exchange Fruit on Display in the Boston Market

## Our Terms and Methods

**Terms.** Cash with order if for immediate shipment. If for future delivery, 25 per cent advance payment when order is booked, balance to be payable before trees are shipped.

**Applying Prices.** Five, fifty and five hundred of one class at ten, one hundred and thousand rates, respectively.

**Packing.** We guarantee delivery in good condition, so far as packing is concerned.

**Substitution.** In ordering please state whether we may substitute some similar variety in case those ordered are not in stock.

**Shipping Season.** We always prefer to wait until the trees are dormant, which, ordinarily, is about November first, and continues to the last of February. It is possible to plant somewhat earlier or later than the above dates, but we ship during the growing season only at purchaser's risk.

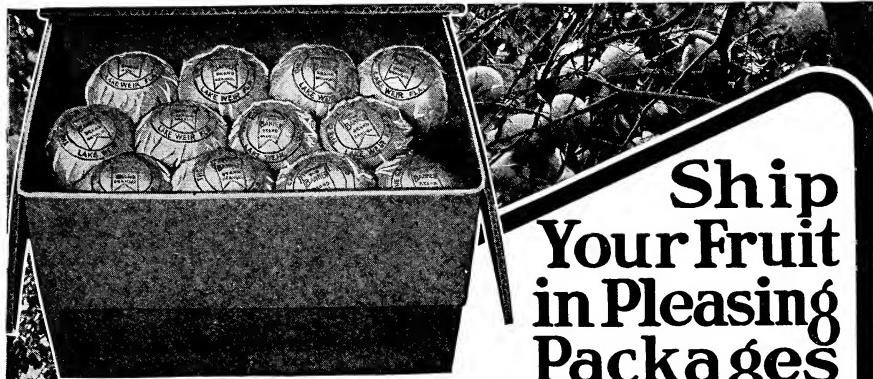
**Proper Labeling.** Everything is sent out plainly marked with best quality of printed labels, attached with brass wire.

**Our Guarantee.** We guarantee all stock sent out to be well rooted, well grown, true to name, properly packed and shipped according to instructions.

**Liability.** While we exercise the greatest care to have trees true to label, and hold ourselves prepared, on proper proof, to replace any that may prove otherwise, we do not give a warranty, expressed or implied, and in case of error on our part, it is mutually agreed between the purchaser and ourselves that we shall not at any time be held responsible for a greater amount than was paid for the trees.

**Claims.** Every precaution is used against errors, but if they occur we will promptly rectify them if claim be made as soon as the error is discovered.

**In Writing.** Orders give Post-Office Address in full, including County and State. Also point of destination, if different from post office. Name route by which to ship, if there is any preference. State whether by freight or express.



## Ship Your Fruit in Pleasing Packages

Bear in mind that the consumer knows nothing about your fine grove and garden and excellent packing-house facilities. He forms his idea of quality from the appearance of the container.

The increasing scarcity of timber from which the heavy wooden boxes are made should be a warning that some other box material soon will have to be used for the shipment of Florida fruits and vegetables.

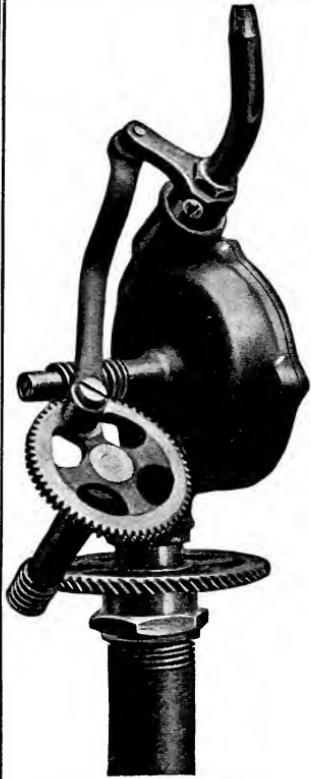
## "H. & D." Corrugated Boxes

These containers are made of light, resilient, though tough and strong, material, five square feet weighing less than one pound. Their cushion-like, cellular construction makes them non-conductors of extreme heat and cold.

They are manufactured in all shapes and sizes, and are especially adapted for fruits, vegetables, poultry and dairy products. Write to us and let us help you solve your shipping problems. Don't delay. Catalogue and booklet free.

**The Hinde & Dauch  
Paper Company  
Sandusky  
Ohio**





# The CAMPBELL TURBO- IRRIGATOR

Solves the Problem of

## Orchard Irrigation

Placed on permanent standpipes sufficiently tall to extend through and above trees, and attached to underground pipe system supplied with water under proper pressure, this wonderful machine will thoroughly and perfectly irrigate an area up to 100 feet in diameter, and at this maximum distance requires an average of less than five stands per acre.

In operation, water under pressure passes through the machine causing the inclosed turbine to revolve and transmits power to the gearing that operates the discharge nozzle, raising it from a 45 degree to an almost vertical position, and at the same time slowly revolves the entire machine around its axis. In other words, it accomplishes the same results that can be obtained by anyone raising and lowering a small fire nozzle, at the same time turning around very slowly, but the peculiar motion transmitted to the nozzle breaks the stream into fine drops, thus obtaining results incomparably superior to what could be obtained in the manner suggested.

By reason of the immense area covered, very little pipe and other material is required in its installation, which means that the most perfect irrigation, at small expense, is now possible for every progressive horticulturalist.

**J. P. CAMPBELL, Jacksonville, Fla.**

*Largest stock Gas Engines, Power Pumps and Supplies in the South.  
Manufacturer Modern Fruit Packing-house Machinery  
and Campbell Irrigation Equipment*

# The Foolish Virgins Were Wise

Compared with the man who goes to the trouble and expense of producing fine fruit and then sends it to market not properly washed, dried, sized, polished and packed, or has it handled by machinery that causes injury and decay.

## THE COMPLETE CAMPBELL LINE

Of splendidly constructed, sturdy, long-lived, modern fruit packing-house machinery, is absolutely unequalled in its perfect work. It is made in the best and most modern factory of its kind in America, and by a firm that has every facility for giving its patrons perfect service.

Watch the market reports and you will see that users of Campbell Equipment obtain higher prices than any other shippers. "There's a reason," and it's to your interest, Mr. Shipper, to find it.



**J. P. CAMPBELL, Jacksonville, Fla.**

# THE MAPES FERTILIZERS

*The Standard for  
Generations*

What the Hall Mark is to Silver,  
Mapes has always been to Fertilizers  
—STERLING.

## An Absolute Guarantee of Strength and Quality

This was always so before the war and has continued to be so straight through the war. From the day war was declared we have manufactured our brands with full contents of Potash, with precisely the same choice materials as in the past.

It is small wonder that the most successful growers have used and will continue to use Mapes. They have been used in the Buckeye Nurseries for 29 years.

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J. R. TYSER, Agent  
JACKSONVILLE FLORIDA



## UTILITY

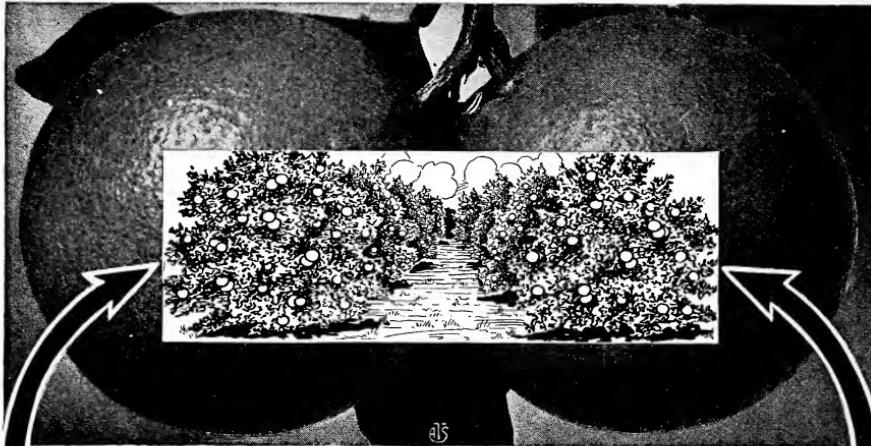
from your seeds is what you want  
and it is exactly what you can  
depend upon from this concern.

A corps of experienced experts  
on all seed matters are maintained  
both for your benefit and ours.  
The business of these men is to  
know seeds, soils and everything  
that you want to know about plant-  
ing. When you use this service,  
which there is no doubt you will,  
your worries are over as to the  
harvest.

Crenshaw seeds are tested seeds  
—every pound we sell is tested  
for purity and strength. Put your  
problem up to us and write for  
prices on seeds you need. If it is  
your Citrus Grove, let us tell you  
about that cover-crop, or spraying.

WE KEEP A FULL LINE OF  
INSECTICIDE SPRAY PUMPS.

**Crenshaw Bros. Seed Co.**  
Post-Office Box 931A



## Ground Lime and Legumes Make Humus For Growing Crops and Young Trees

Farm experts keep on telling you that crops will not grow well on run-down soils without first putting the fields in a sanitary condition by means of a generous application of ground limestone. These experts know their business.

Thousands of acres of new citrus groves have been planted during the past year. Young trees on new land will grow very much faster and stronger if the soil is given a liberal application of Blowers Ground Limestone.

Ground Limestone need not be plowed in, but it should be thoroughly incorporated in the top soil by harrowing before the cover crop is planted. In the fall, plow in the whole crop. It will pay, because it makes humus.

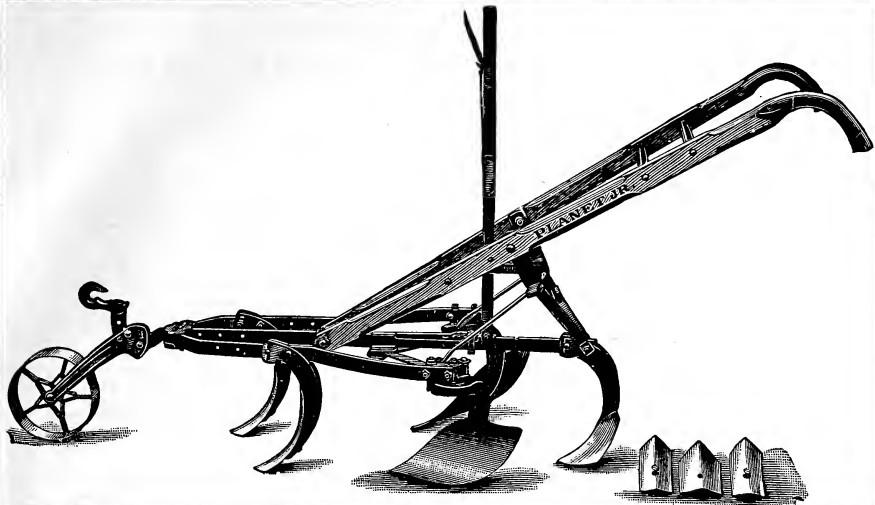
## Soil Made Fertile at Very Low Cost

A high content of humus increases the water-holding capacity of the soil, keeps it open and supplies large quantities of plant-life, which in turn creates an abundance of nitrogen for the sustenance of growing crops.

Blowers Ground Agricultural Lime is an economical and effective soil conditioner. It makes acid soils sweet; it releases potash salts and imparts strength and vigor to growing trees and crops, and insures big yields.

Let us send you our literature, samples of finely ground limestone, and further details, including prices delivered to your station.

**Blowers Lime & Phosphate Company**  
Box V-308, Ocala, Florida



**Planet Jr. Implements  
Brinley Hardy Plows  
Acme Harrows  
Clark's Cutaway Harrows  
Superior Disc Harrows  
Pittsburgh Perfect Fencing  
“Binks” Sprayers**

Insist on getting these goods. They are the recognized standards.

If your local dealer cannot furnish, have him order from us.

*Catalogues furnished on application*

**KNIGHT & WALL CO., Hardware  
TAMPA, FLORIDA**

# A Strong Bank for Your Savings No Matter Where You May Live

There is no reason why you should not make your savings earn more money for you, with the utmost safety for principal and interest absolutely assured.

Even if you are located in a community that does not have adequate banking facilities, the United States mails place at your service the resources of the strongest financial institutions.

The Citizens Bank and Trust Company, of Tampa, the largest State Bank in Florida, has a capital of \$250,000, an earned surplus of over \$500,000, and total resources of more than \$3,000,000. The management is aggressive yet conservative, and this bank is widely known as a financial stronghold.

We pay four per cent interest on savings deposits of one dollar and upward, interest compounded quarterly—January 1, April 1, July 1 and October 1. Use the deposit slip below, sending in your deposit by mail, before the fifth of the month, and we will allow interest for the full quarter in which received. DO IT NOW.

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E. M. Hendry  
Vice-President



## Directors

Dr. Louis A. Bize  
President

C. E. Allen  
Vice-President

E. M. Hendry  
Vice-President

W. B. Gray  
Gray-Ball Realty Co.

E. B. Lucas  
Lucas Bros., Wholesale  
Grocers

W. E. Dorchester  
Real Estate and Rents

John T. Dismukes  
Pres. First Nat. Bank  
St. Augustine

TO OPEN AN ACCOUNT BY MAIL  
fill out the following blank and mail to

## THE CITIZENS BANK & TRUST COMPANY TAMPA, FLORIDA

with money order, draft, or other remittance

Date \_\_\_\_\_

REMITTED BY \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Check . . . . \$ \_\_\_\_\_

Draft . . . . \$ \_\_\_\_\_

Post Office Money Order \$ \_\_\_\_\_

Express Money Order . . \$ \_\_\_\_\_

Currency . . . . \$ \_\_\_\_\_

Total, \$ \_\_\_\_\_

IMPORTANT—All checks, drafts or money orders should be made payable to THE CITIZENS BANK AND TRUST COMPANY.

Currency may be safely sent through the mail by registered letter, or remittance may be made by post-office money order, express money order, bank check or draft. Money orders, checks and drafts need not be sent by registered mail.

One Dollar is Enough to Begin With

## Officers

W. W. Trice  
Cashier

D. H. Laney  
Assistant Cashier

W. W. Blount  
Assistant Cashier



## Directors

Frank Bentley  
Bentley-Gray Dry Goods  
Company

Enrique Pendas  
Capitalist

A. L. Cuesta  
Cuesta, Rey & Company

S. R. Morey  
Morey & Company

W. W. Trice  
Cashier

Ike Maas  
Maas Brothers

D. C. Gillett  
M. E. Gillett & Son

# ORDER SHEET

HUCKLEBERRY NURSERIES, Tampa, Florida

Date

191

Gentlemen—For the account of the undersigned, please enter order for the Citrus Fruit Trees listed below.  
Find enclosed

Ship by

Write here Freight Express or Air Mail

When

Write here date on which shipment is to be made

This order for full shipping directions, without reference to Post Office address of purchaser.

This space for name and Post Office address of purchaser, without reference to destination of shipment. Ladies, please give title, Miss or Mrs.

WRITE PLANT  
Name

WRITE PLANT  
Name

Place

Street and No.  
or P. O. Box

State

Post Office

Via

State

Note.—Under the heading "Stock," write R.L. for Rough Lemon, S.O. for Sour Orange, G.F. for Grapefruit or U.Y.D. for Use Your Discretion.

QUANTITY

VARIETY

STOCK

SIZE

PRICE EACH

Parson Brown Orange

Pineapple Orange

Ruby Blood Orange

Valencia Late Orange

Tardiff Orange

Lue Gim Gong Orange

Satsuma Orange

King Orange

Tangerine (Dancy) Orange

Tangelo

Inman Late Grapefruit

Walter's Grapefruit

Marsh Seedless Grapefruit

Lime (Tahiti)

Lemon (Villa Franca Seedless)

Kumquat

(Sign)

# ORDER SHEET

Date \_\_\_\_\_

191\_\_\_\_

## BUCKEYE NURSERIES, Tampa, Florida

Gentlemen: For the account of the undersigned, please enter order for the Citrus Fruit Trees listed below.

Find enclosed \_\_\_\_\_ . Ship by \_\_\_\_\_

When \_\_\_\_\_

Write here date on which shipment is to be made

Write here "Freight," "Express," or "Use your discretion."

**■ This space for full shipping directions, without reference to Post Office address of purchaser.**

**■ This space for name and Post Office address of purchaser, without reference to destination of shipment. Ladies, please; give title, Miss or Mrs.**

Name \_\_\_\_\_

Name \_\_\_\_\_

**WRITE PLAINLY**

Place \_\_\_\_\_

Express or Freight Station \_\_\_\_\_

State \_\_\_\_\_

Street and No. \_\_\_\_\_  
or P. O. Box \_\_\_\_\_

Via \_\_\_\_\_

State \_\_\_\_\_

Street and No. \_\_\_\_\_  
or P. O. Box \_\_\_\_\_

Post Office \_\_\_\_\_

Note.—Under the heading "Stock," write R.L. for Rough Lemon, S.O. for Sour Orange, G.F. for Grapefruit, or U.Y.D. for Use Your Discretion

QUANTITY	VARIETY	STOCK	SIZE	PRICE EACH
	Parson Brown Orange			
	Pineapple Orange			
	Ruby Blood Orange			
	Valencia Late Orange			

# THIS CATALOG IS A SAMPLE OF THOMAS ADVERTISING SERVICE

It was designed, illustrated, and written by us, working in close coöperation with the owners of Buckeye Nurseries.

Booklets recently issued by such well-known Florida concerns as the Florida Fruitlands Company, the Gray-Ball Realty Company, the Mountain Lake Corporation, and the L. B. Skinner Manufacturing Company also are examples of work done under our direction.

We have no engraving or printing plants to keep busy, so need not devote any of our time to selling printed matter. Whenever we recommend a booklet or catalog to a client it is solely because we believe his business demands the use of this form of advertising.

The greater part of our energies are absorbed in the preparation and placing of magazine and newspaper advertising, and in the making of plans whereby such publicity is rendered of maximum efficiency. We handle all the advertising of Buckeye Nurseries as well as that of the Florida Citrus Exchange and several dozen other leading Florida enterprises.

Our service has fully proved its value. We refer to any of our clients as to the satisfaction it has given them. It costs no more to advertise through us, getting the benefit of our experience and facilities, than to do business direct with publishers. In fact, it costs less in the end, as we save our clients a considerable expense in detail work. If you have anything that you think might be advertised to advantage, write us for our booklet, "The Thomas Idea," and for fuller particulars of our plans.

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## The Thomas Advertising Service

HEARD NATIONAL BANK BUILDING  
JACKSONVILLE, FLORIDA

CITIZENS BANK AND TRUST BUILDING  
TAMPA, FLORIDA

JEFFERSON THOMAS, President  
FRED W. KETTLE, Vice-President

D. G. HALEY, Secretary  
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# BUCKEYE NURSERIES



Tampa, Florida  
ESTABLISHED 1880